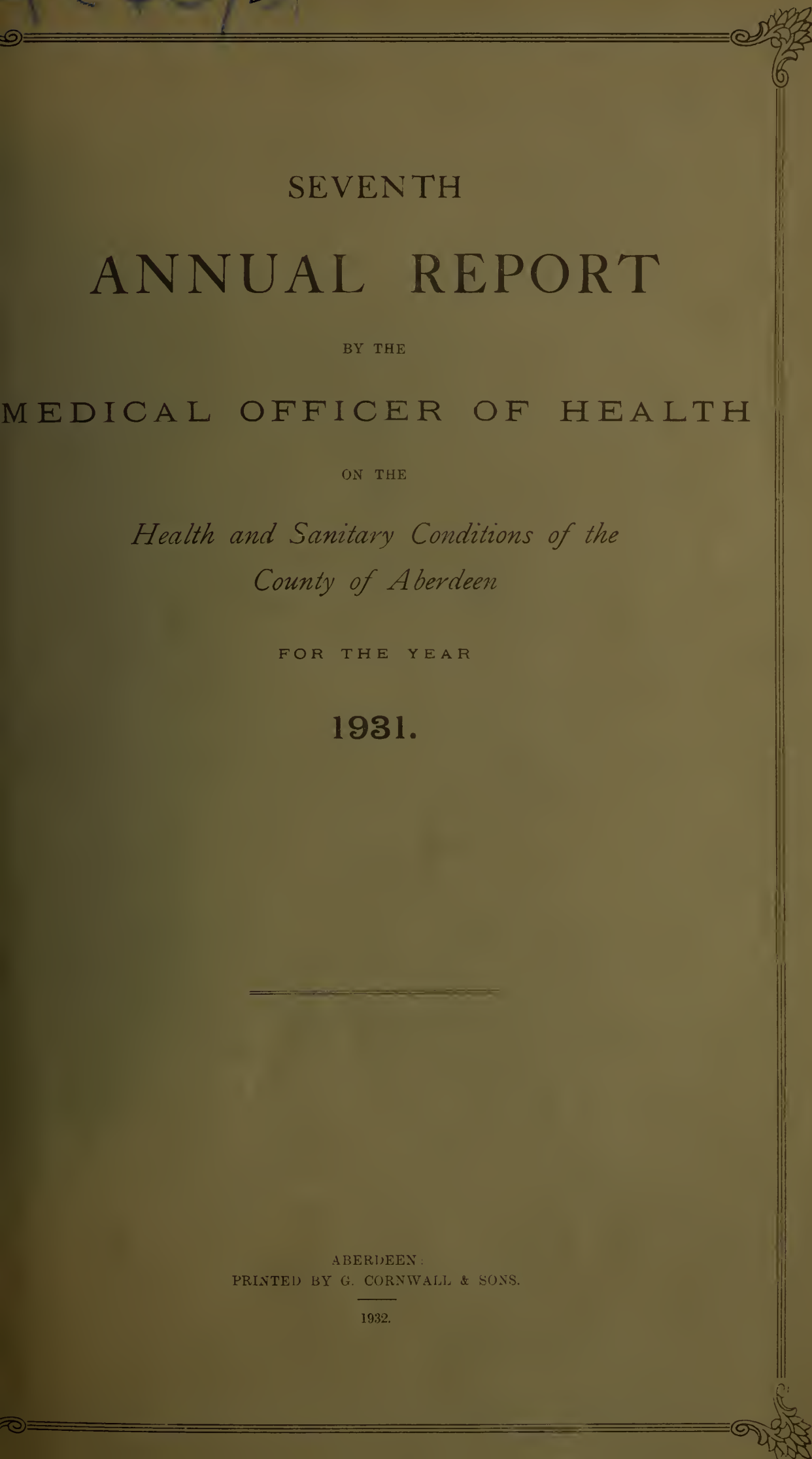


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SEVENTH

ANNUAL REPORT

BY THE

MEDICAL OFFICER OF HEALTH

ON THE

*Health and Sanitary Conditions of the  
County of Aberdeen*

FOR THE YEAR

1931.

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ABERDEEN:  
PRINTED BY G. CORNWALL & SONS.

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## CONTENTS.

							PAGE
Statistical Summary	...	...	...	...	...	...	5
Introduction	...	...	...	...	...	...	7

## SECTION I.

## GENERAL PUBLIC HEALTH OF THE DISTRICTS.

<b>1. Vital Statistics</b>	...	...	...	...	...	...	11
<b>2. Morbidity and Mortality from Infectious Diseases—</b>							
<i>(a) Notifiable Infectious Diseases—</i>							
Scarlet Fever	...	...	...	...	...	...	12
Diphtheria ...	...	...	...	...	...	...	15
Prevention of Diphtheria and Scarlet Fever				...	...	...	16
Typhoid and Para-Typhoid Fevers			...	...	...	...	17
Acute Poliomyelitis ...	...	...	...	...	...	...	17
Encephalitis Lethargica		...	...	...	...	...	17
Polio-Encephalitis ...	...	...	...	...	...	...	17
Cerebro-Spinal Fever		...	...	...	...	...	17
Acute Infective Jaundice		...	...	...	...	...	18
Erysipelas ...	...	...	...	...	...	...	18
Pneumonia ...	...	...	...	...	...	...	18
Malaria ...	...	...	...	...	...	...	19
Dysentery ...	...	...	...	...	...	...	19
Chicken-pox	...	...	...	...	...	...	19
Small-pox ...	...	...	...	...	...	...	19
<i>(b) Non-notifiable Infectious Diseases—</i>							
Measles, Whooping Cough, and Mumps ...				...	...	...	19
<b>3. Housing</b>	...	...	...	...	...	...	19
<b>4. Disinfections</b>	...	...	...	...	...	...	24
<b>5. Factory and Workshops Act</b>	...	...	...	...	...	...	24

## SECTION II.

## THE HEALTH OF THE BURGHS.

Vital Statistics	...	...	...	...	...	...	...	25
Incidence of the Commoner Infectious Diseases	...			...	...	...	...	27
Housing	...	...	...	...	...	...	...	27

### SECTION III.

## MATERNITY AND CHILD WELFARE SERVICES.

Births and Birth-rates	...	...	...	...	...	...	31
Infantile Mortality	...	...	...	...	...	...	31
Maternal Mortality	...	...	...	...	...	...	32
Midwives (Scotland) Act, 1915	...	...	...	...	...	...	32
Ophthalmia Neonatorum	...	...	...	...	...	...	34
Educational Measures	...	...	...	...	...	...	34

#### SECTION IV.

## SCHOOL MEDICAL SERVICES.

The Physical Condition of the School Children	...	...	...	...	35
Treatment of Disease in School Children—					
(1) Dental Services	...	...	...	...	39
(2) Defective Vision	...	...	...	...	40

## SECTION V.

## TUBERCULOSIS SERVICES.

	PAGE
Survey ... ..	42
Statistics ... ..	42
Treatment—	
(1) Institutional Treatment ... ..	44
(2) Domiciliary Treatment ... ..	45
(3) Dispensary Treatment ... ..	45

## SECTION VI.

NURSING SERVICES ... ..	47
-------------------------	----

## SECTION VII.

THE TREATMENT OF VENEREAL DISEASES ... ..	59
---	----

## SECTION VIII.

BACTERIOLOGICAL SERVICES ... ..	61
---------------------------------	----

## SECTION IX.

VETERINARY SERVICES ... ..	65
----------------------------	----

## SECTION X.

REPORTS BY SANITARY INSPECTORS ... ..	68
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## STATISTICAL SUMMARY

*(For the Districts and all the Burghs).*

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	Districts.		Burghs.		Total.
1. Acreage, . . . . .	1,251,735	...	3,917	...	1,255,652
2. Population, . . . . . (1931 Census.)	107,423	...	38,178	...	145,601
3. Density of population per acre,	·086	...	9·7	...	·12
4. Birth-rate, . . . . .	19·35	...	21·3	...	19·9
5. Infantile Mortality, . . . .	80·3	...	95·9	...	84·7
6. Death-rate, . . . . .	13·08	...	15·4	...	13·7





## PREFACE.

---

I herewith submit my Seventh Annual Report for the year ended 31st December, 1931, on the Health and Sanitary Conditions of the County of Aberdeen. Reports by the County Bacteriologist, the Veterinary Inspector and by the District and Burgh Sanitary Inspectors are also incorporated.

The population of the eight Districts of the County, as ascertained at the 1931 census, was 107,423, with an excess of 1,381 females, as compared with the number of males. At the census of 1921 the population was 113,567, a decrease in ten years of 6,144. In the Burghs the census in 1931 was 38,178, whilst in 1921 it was 39,825, a decrease of 1,647. At each decennial census there are marked discrepancies between the actual population and the population as estimated by the Registrar-General, which indicate the advisability of having a quinquennial enumeration of the population. **Population.**

For 1931 the birth-rate in the Districts was 19·35 per 1,000 of the population, and in the Burghs it was 21·3. The Scottish birth-rate was 19·04. **Birth-rate.**

The number of deaths in the rural areas was 1,405, which is equal to a death-rate of 13·08 per 1,000 of the population. The death-rate for the whole of Scotland was 13·26. **Death-rate.**

There was a decrease in the number of cases both of scarlet fever and diphtheria. It is generally recognised that hospitalisation of every case of scarlet fever is not desirable; as a matter of fact, if the case is mild in character, if the home conditions are good, and if adequate nursing facilities are available, home treatment is encouraged in preference to institutional treatment. **Infectious Diseases.**

The incidence of infectious diseases was so low during the year under review that the accommodation in the infectious diseases hospitals was more than adequate for the needs of the County.

Towards the end of the year arrangements were made for the concentration of the infectious diseases hospitals, to take effect as from 16th May, 1932. At the end of the year there were twelve such hospitals, and the Council decided to reduce the number to five, retaining for the reception of infectious diseases the hospitals at Peterhead, Fraserburgh, Huntly, Inverurie and Aboyne. Strichen Hospital has been converted into a Tuberculosis Institution. The suggested policy was that the remaining hospitals should not be closed, but should, if possible, be used as "cottage" hospitals; these hospitals would be essentially voluntary institutions, but it was intended that the Local Authority should maintain a definite number of beds for statutory cases. Such cottage hospitals can best function if they are controlled by the Local District Nursing Associations, and if the district nurses are appointed acting matrons. It is hoped that the hospitals at Ballater, Turriff and Alford will ultimately be converted into cottage hospitals. Ellon Hospital would have been an ideal cottage hospital, but there is in this institution considerable bed accommodation, and the hospital is only some sixteen miles distant from Aberdeen, which is so excellently equipped as regards its general hospitals. Summerfield Hospital,

which is adjacent to Woodend Hospital, has also been closed for the reception of infectious cases from the County; cases from Aberdeen District are now sent to the infectious hospitals at Aboyne, Inverurie or Aberdeen. It should be noted that none of these disused hospitals can be supported entirely by the County Council for the reception of cases suffering from general ailments, as no scheme for such provision has yet been submitted by the Council to the Department of Health for Scotland, under the Local Government (Scotland) Act, 1929. The altered distribution of infectious cases has caused no difficulty so far as the medical practitioners are concerned, but some rate-payers have objected to having their relatives sent to what, to them, appears to be distant hospitals; in view of the ease of movement of patients by modern transport, their objection is not a strong one, and it must be remembered that the great majority of admissions to infectious diseases hospitals are children, and that, from the viewpoint of treatment, the fewer visits relatives make to the hospitals the better.

#### **Tuberculosis.**

The number of deaths from tuberculosis in the whole County, including the Burghs, was 104, and of these 104 deaths, 74 were due to pulmonary tuberculosis and 30 to non-pulmonary tuberculosis. The death-rate for all forms of tuberculosis, per 100,000 of the population, was 71·4; for pulmonary tuberculosis it was 50·8; and for non-pulmonary tuberculosis, 20·6.

In 1931 the Scottish death-rate was as follows:—

Tuberculosis (all forms)	. . . . .	87
Pulmonary tuberculosis	. . . . .	62
Non-pulmonary tuberculosis	. . . . .	25

In all previous annual reports attention has been drawn to the fact that a very large proportion of the deaths from non-pulmonary tuberculosis is due to infected milk. One of the most satisfactory methods whereby this death-rate can be diminished is, in my opinion, the frequent physical examination of dairy cows by competent veterinary inspectors, and the destruction of animals found to be affected with tuberculosis of the mammary gland. Examination by veterinary inspectors is much more important than the tuberculin test, which may show a cow to be tuberculous although the milk from that animal may not contain tubercle bacilli; a small tuberculous lesion, in, say, a retropharyngeal gland may give a positive reaction, but that animal most probably produces thoroughly good and wholesome milk.

#### **Mother and Child Welfare.**

The scope of the Maternity Service and Child Welfare Scheme is gradually extending. The number of clinics is being increased, and success of this branch of the public health work is largely due to the zealous and efficient work of Dr. J. A. Stephen, Regional Medical Officer for Mother and Child Welfare. His efforts in the County of Kincardine are also bearing fruit.

#### **School Medical Services.**

The scheme for the medical inspection and treatment of school children continues to be carried out in a most satisfactory manner. The importance of dental treatment is being recognised by parents to such an extent that the dentists have found it impossible to visit all the schools each year, which must be accepted as the minimum satisfactory visitation. No arrangements have yet been made by the Local Authority for the operative treatment of enlarged tonsils and adenoids; this work is carried out either by the voluntary hospitals or by the family doctors.

The housing conditions of the County have received special attention by **Housing.** the Council during the past year, and their policy is shown in the Section of this Report dealing with Housing. Full advantage is being taken of the advantageous provisions of the Housing (Rural Workers) Acts. During the year under review application was made to the Department of Health for Scotland for the erection of 400 houses under the Housing (Rural Authorities) Act, 1931, but only 40 were granted. The adoption of schemes under the Housing (Scotland) Act, 1930, will meet the housing needs of several villages in the County.

The general work of the Health Department has proceeded smoothly **Acknowledg-** throughout the year. The work has been arduous and has been performed in **ments.** a very satisfactory manner.

I wish to express my thanks to the Heads of Departments and to the members of the staff for their loyalty and assistance during the year.

As a departure from the usual custom in working out the vital statistics, the figures have been based on the actual population as ascertained at the 1931 census and not on the estimated mid-year population. The differences are insignificant.

HARRY J. RAE,  
*Medical Officer of Health.*



## Section I.

### GENERAL PUBLIC HEALTH OF THE DISTRICTS.

#### 1.—VITAL STATISTICS.

##### Population.

The population of the eight Districts of the County at the date of the census, 26th April, 1931, was 107,423. The population of the Districts, as ascertained at the last four decennial censuses, was as follows:—

In 1901,	the population was	124,007.
In 1911,	„ „	119,209.
In 1921,	„ „	113,567.
In 1931,	„ „	107,423.

In the last 30 years, the actual fall in the population amounted to 16,584, and in the last 10 years, it was 6,144.

The following table shows the population resident in the different Districts on census day, 1931, together with the corresponding figures for 1921:—

TABLE I.

District.	Population at 1921 Census.	Population at 1931 Census.	Increase or Decrease.
Deer, . . . .	27,177	24,585	— 2,592
Ellon, . . . .	13,311	12,583	— 728
Garioch, . . . .	12,490	11,625	— 865
Deeside, . . . .	12,037	10,974	— 1,063
Turriff, . . . .	10,684	10,044	— 640
Aberdeen, . . . .	22,777	23,756	+ 979
Alford, . . . .	8,668	7,659	— 1,009
Huntly, . . . .	6,423	6,197	— 226
Total, . . . .	113,567	107,423	— 6,144

An increase of population, viz., 979, was shown only in the Aberdeen District.

In 1931 the natural increase in population, that is, the excess of births over deaths, was 674, as compared with 913 in 1930.

##### Marriages.

In 1931, 462 marriages were registered, as against 479 in 1930. The marriage-rate—the number of marriages per 1,000 of population—was 4·3.

##### Births.

The total number of births, corrected for inward and outward transfers, was 2,079. Of these, 1,081 were males and 998 females. There were 159 fewer births than in 1930. The Scottish birth-rate for 1931 was 19·04 per 1,000 of population, and the District birth-rate was 19·35.



Since 1924 the birth-rates in the Districts were:—22·3 in 1924; 22·02 in 1925; 20·02 in 1926; 21·2 in 1927; 21·9 in 1928; 20·3 in 1929; 20·4 in 1930.

Of the total births, 357 were illegitimate. The illegitimate birth-rate was 17·17 per 100 births. In 1930 it was 16·7; in 1929, 17·3; in 1928, 17·5; and in 1927, 16·04.

#### Deaths and Death-rate.

After making correction for transfers, it was found that the net number of deaths in the Districts was 1,405, which is equivalent to a death-rate of 13·08 per 1,000 of population. The rate is calculated on the population as revealed at the recent census. The death-rate in 1930 was 12·06.

The total number of deaths registered in Scotland was 64,230, representing a death-rate of 13·26.

#### Causes of Death.

The principal causes of death, with the number of deaths attributable to the various well-defined diseases, are here given:—

Organic disease of the heart and blood vessels . . . . .	292 deaths.
Respiratory diseases— (Excluding tuberculosis and influenza.)	
Pneumonia . . . . .	77
Bronchitis . . . . .	70
Other lung diseases . . . . .	19
	166 „
Cancer . . . . .	149 „
Tuberculosis—	
Pulmonary . . . . .	57
Non-pulmonary . . . . .	18
	75 „
Kidney disease . . . . .	38 „
Chief epidemic diseases—	
Diarrhoea and Enteritis . . . . .	16
Whooping Cough . . . . .	16
Diphtheria . . . . .	6
Measles . . . . .	9
Scarlet Fever . . . . .	—
Enteric Fever . . . . .	1
	48 „
Influenza . . . . .	51 „
Appendicitis . . . . .	8 „
Puerperal Sepsis . . . . .	3 „
Diseases of early infancy and malformations . . . . .	68 „
Violence . . . . .	69 „

In regard to the causes of death, the following two facts are worthy of note:—

- (1) As compared with 1930, there were 91 fewer deaths from organic disease of the heart and blood vessels, the most common cause of death.
- (2) In 1931 cancer caused 149 deaths, as against 161 in 1930, a decrease of 12.

## 2.—MORBIDITY AND MORTALITY FROM INFECTIOUS DISEASES.

### (a) Notifiable Infectious Diseases.

#### SCARLET FEVER.

The number of cases of scarlet fever notified in the Districts and Burghs since 1925 was as follows:—

1925	.	.	.	.	.	.	.	398 cases.
1926	.	.	.	.	.	.	.	627 „
1927	.	.	.	.	.	.	.	603 „
1928	.	.	.	.	.	.	.	577 „
1929	.	.	.	.	.	.	.	356 „
1930	.	.	.	.	.	.	.	296 „
1931	.	.	.	.	.	.	.	223 „

The incidence of scarlet fever was remarkably low. In 1931, there were 56 fewer notifications from the Districts and 17 fewer from the Burghs.

*Age Incidence.*—Of the 170 notifications from the Districts, 88, or 52 per cent., were of school age and 27, or 16 per cent., were under school age.

The ages of the notified cases are given in Table II.

TABLE II.  
SCARLET FEVER.  
*Age Incidence of Cases (Districts).*

Districts.	Under 1 year.	1-5.	5-15.	15-25.	25-45.	45-65.	Over 65.	Total.
Deer . . .	—	8	27	4	6	3	—	48
Ellon . . .	—	4	14	8	1	—	—	27
Garioch . .	—	1	9	4	1	1	—	16
Deeside . .	—	4	3	2	1	—	—	10
Turriff . .	—	2	2	3	1	—	—	8
Aberdeen . .	—	7	20	6	3	1	—	37
Alford . . .	—	—	7	4	2	—	—	13
Huntly . . .	—	1	6	3	1	—	—	11
Totals . . .	—	27	88	34	16	5	—	170
Percentage .	—	15·8	51·7	20	9·4	2·9	—	—

*Seasonal Prevalence.*—As is usual, the period of greatest prevalence was towards the end of the year. Table III shows the monthly incidence in the Districts and Burghs.

TABLE III.  
SCARLET FEVER.  
*Monthly Incidence of Cases (Districts and Burghs).*

Month.	Districts.		Burghs.		Total.
January . . .	12	...	3	...	15
February . . .	7	...	1	...	8
March . . . .	6	...	2	...	8
April . . . . .	14	...	3	...	17
May . . . . .	9	...	—	...	9
June . . . . .	19	...	1	...	20
July . . . . .	6	...	—	...	6
August . . . .	17	...	2	...	19
September . .	21	...	4	...	25
October . . . .	12	...	11	...	23
November . . .	25	...	19	...	44
December . . .	22	...	7	...	29
Total . . . . .	170	...	53	...	223

*Institutional Treatment.*—Of the 223 cases notified, 209 cases, or 93·3 per cent., were treated in infectious diseases hospitals. In Table IV are given details relating to the cases treated institutionally. The number of days in hospital per completed case was 40·4.

TABLE IV.  
SCARLET FEVER.  
*Hospital Treatment.*

Hospital.	Area Served.	Cases Notified.	Admissions to Hospital.	Period of Institutional Treatment in Days, per Completed Case.	Number Discharged during Year.	Number of Days in Hospital per Completed Case.	Number of Deaths.	Death-rate per 100 Cases.
Strichen	Deer District; Rose-hearty Burgh	48	39	1,172	28	42	—	—
Ellon	District and Burgh	27	23	1,157	24	48	—	—
Inverurie	District of Garioch and Burghs of Inverurie, Kintore and Oldmeldrum	24	23	985	24	41	—	—
Aboyne	Deeside District	10	11	353	11	32	—	—
Turriff	District and Burgh	8	5	470	9	52	—	—
Summerfield	Aberdeen District	37	35	1,088	31	35	—	—
Alford	District	13	11	443	11	40	—	—
Huntly	District and Burgh	16	16	641	19	34	—	—
Ballater	Burgh	—	—	—	—	—	—	—
Fraserburgh	Burgh	16	22	656	15	44	—	—
Braemar	—	—	—	—	—	—	—	—
Peterhead	Burgh	24	24	839	21	40	—	—
Total		223	209	7,804	193	40·4	—	—

*Mortality.*—No deaths occurred from this disease in 1931.



## DIPHTHERIA.

There was a marked decrease in the number of diphtheria cases notified, there being 205 notifications in 1931, as compared with 442 in 1930. In the Districts, there were 78 notifications, as against 161 in 1930, and in the Burghs 127 in 1931, as against 281 in the preceding year.

Tables V, VI and VII show respectively the age incidence, the monthly incidence, and particulars relating to institutional cases.

TABLE V.

## DIPHTHERIA.

*Age Incidence of Cases (Districts).*

Districts.	Under 1 Year.	1-5.	5-15	15-25.	25-45.	45-65.	Over 65.	Total.
Deer . . .	—	5	8	12	4	1	—	30
Ellon . . .	—	4	4	2	—	—	—	10
Garioch . . .	—	2	2	3	2	—	1	10
Deeside . . .	—	—	1	—	1	—	—	2
Turriff . . .	—	1	3	1	—	1	—	6
Aberdeen . . .	1	3	5	4	1	1	—	15
Alford . . .	—	—	—	1	2	—	—	3
Huntly . . .	—	—	1	—	—	1	—	2
Totals . . .	1	15	24	23	10	4	1	78
Percentage .	1·2	19	30·7	29·4	12·8	5·1	1·2	100

TABLE VI.

## DIPHTHERIA.

*Monthly Incidence (Districts and Burghs).*

Month.	Districts.		Burghs.		Total.
January . . . .	6	...	17	...	23
February . . . .	5	...	6	..	11
March . . . . .	5	...	7	...	12
April . . . . .	9	...	5	...	14
May . . . . .	10	...	9	...	19
June . . . . .	2	...	10	...	12
July . . . . .	4	...	10	...	14
August . . . . .	9	...	13	..	22
September . . . .	5	...	14	...	19
October . . . . .	6	...	8	...	14
November . . . . .	5	...	11	...	16
December . . . . .	12	...	17	...	29
Total . . . . .	78	..	127	...	205

TABLE VII.  
DIPHTHERIA  
*Hospital Treatment.*

Hospital.	Cases Notified.	Admissions to Hospital.	Period of Institutional Treatment in Days, per Completed Case.	Number Discharged during Year.	Number of Days in Hospital per Completed Case.	Number of Deaths.	Death-rate per 100 Cases.
Strichen .	43	23	630	27	23	1	4
Ellon .	10	9	335	8	42	1	11
Inverurie .	15	11	389	15	26	—	—
Aboyne .	2	3	78	2	39	1	33
Turriff .	6	6	145	5	15	1	16.6
Summerfield .	15	12	326	11	30	—	—
Alford .	3	2	23	2	11	—	—
Huntly .	6	6	202	7	29	—	—
Ballater .	—	—	—	—	—	—	—
Fraserburgh .	30	40	1,030	41	25	1	2.5
Braemar .	—	—	—	—	—	—	—
Peterhead .	75	79	1,730	83	20.8	7	8.8
Total .	205	191	4,888	201	24.3	12	6.3

*Mortality.*—Twelve deaths occurred amongst the 205 cases, representing a case mortality of 5.8 per cent., as compared with 3.6 per cent. in 1930, 2.7 in 1929, and 5.5 in 1928.

#### Active Immunisation against Scarlet Fever and Diphtheria.

During 1931, no testing or active immunisation was undertaken in regard to scarlet fever and diphtheria, owing to the fact that the medical staff could not overtake the work. For five years, prior to 1930, intensive work was carried out in Aberdeenshire, and the conclusion arrived at was that Schick-testing and subsequent active immunisation of those found to be susceptible by injections of toxoid antitoxin mixture was a very valuable means of preventing diphtheria. Our experience was that similar measures directed against scarlet fever were of comparatively little value.

## TYPHOID AND PARA-TYPHOID FEVERS.

In 1931, 17 cases of typhoid and para-typhoid fever were notified, as compared with 22 in 1930.

The cases were distributed as follows :—

Deer District . . . . .	10 cases.
Ellon District . . . . .	1 case.
Garioch District . . . . .	1 „
Peterhead Burgh . . . . .	3 cases.
Fraserburgh Burgh . . . . .	2 „
Total . . . . .	17 „

The number of notifications and of deaths since 1914 is given in the following Table :—

TABLE VIII.

YEAR.	Notifications.	Deaths.	Percentage Case Mortality.
1914 . . . . .	25	3	12
1915 . . . . .	19	4	21
1916 . . . . .	17	—	—
1917 . . . . .	22	4	18·2
1918 . . . . .	26	4	15·4
1919 . . . . .	16	3	18·8
1920 . . . . .	28	2	7·1
1921 . . . . .	23	4	17·4
1922 . . . . .	19	1	5·3
1923 . . . . .	13	1	7·7
1924 . . . . .	3	—	—
1925 . . . . .	22	2	9·1
1926 . . . . .	3	—	—
1927 . . . . .	22	1	4·5
1928 . . . . .	16	2	12·5
1929 . . . . .	40	3	7·5
1930 . . . . .	22	3	13·6
1931 . . . . .	17	1	5·9
Totals . . . . .	353	38	10·7

Of the 17 cases, 4 suffered from typhoid fever and 13 from para-typhoid fever.

## ACUTE POLIOMYELITIS (INFANTILE PARALYSIS).

In 1931 one case of infantile paralysis was notified. The sufferer, a child of four years, was treated in the Aberdeen City (Fever) Hospital.

## ENCEPHALITIS LETHARGICA (SLEEPY SICKNESS).

Encephalitis lethargica, epidemic encephalitis or sleepy sickness, became a compulsorily notifiable disease in 1925. The number of cases notified in 1931 was 2, a similar number being notified in 1930. Neither of the cases notified in 1931 received institutional treatment.

## POLIO-ENCEPHALITIS.

Two cases of polio-encephalitis were notified in 1931, one residing in the Deer District and the other in Peterhead.

## CEREBRO-SPINAL MENINGITIS.

There were two cases of cerebro-spinal fever during the year. Both were treated in the Aberdeen City (Fever) Hospital.

## ACUTE INFECTIVE JAUNDICE.

There were no cases notified in 1931.

## ERYSIPELAS.

Seventy-six cases of erysipelas were notified, as compared with 95 in 1930. There were no deaths.

## PNEUMONIA.

Acute primary and acute influenzal pneumonia are notifiable under the Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations (Scotland), 1919. It should be noted that broncho-pneumonia, if acute and primary, is also a notifiable disease.

In 1931 the number of cases of pneumonia notified in the Districts and Burghs was 301, as compared with 312 in 1930.

Special wards are set aside in Woodend Hospital for the treatment of this disease. For the past two years serum treatment has been employed in selected cases, under the direction of Professor L. Stanley P. Davidson, Regius Professor of Medicine, University of Aberdeen. The results of this serum treatment have so far been very satisfactory. The following circular letter was sent to each general practitioner in the area :—

County Health Department,  
4, Albyn Place,  
Aberdeen, 17th November, 1931.

Dear Sir,

*Serum Treatment of Pneumonia.*

At a meeting held recently in the Medical Research Council Office, London, a discussion took place on the value of the treatment of lobar pneumonia with concentrated (Felton) anti-pneumococcal serum.

Professor Davidson, who was present at this meeting, tells me that the opinion of all workers who had experience of this form of treatment was unanimously in favour of its clinical value, particularly in cases of Type I and Type II Pneumonia, in which treatment is started within three or four days of the onset, and in which adequate doses of serum are given. In view of this finding, the Committee decided to continue the investigation of the value of serum treatment of pneumonia at certain selected centres, one of which is Woodend Hospital, Aberdeen. Concentrated pneumococcal serum is now available for use, and it is hoped that practitioners will send cases of pneumonia to Woodend Hospital as soon after the onset of the disease as possible.

It is recognised that in some cases physical signs may be present for two or three days, but the importance of early treatment with serum is so great that it is hoped that cases starting with a rigor, pain in the side, or symptoms suggestive of pneumonia, should be immediately sent to Woodend Hospital. Should the case turn out to be some condition other than pneumonia, adequate treatment will be given and the patient will be sent home when convalescent.

An explanation to the patient, or the relatives, of the importance of early treatment with serum will do much to gain their consent to enter hospital.

Yours faithfully,

(Signed) H. J. RAE,  
Medical Officer of Health.



In actual practice every alternate case between the ages of 20 and 60 years was given serum, provided that the patient was admitted within the first five days of illness, and suffered from Type I or Type II pneumococcal infection. In most of the serum-treated cases, the condition seemed to be markedly improved after the injection. The crisis usually followed soon after serum administration. The mortality rate was definitely lowered.

In order that full benefit may be derived from serum treatment, early diagnosis and prompt treatment are essential.

In 1931, 24 cases of lobar pneumonia were treated with Felton's serum, as compared with 20 in 1930. The treatment of special cases of pneumonia with serum will be continued in 1932.

#### MALARIA.

Five cases of malaria were notified. None received institutional treatment.

#### DYSENTERY.

Forty-three cases of dysentery were notified, as compared with 23 in 1930. Seven cases were treated in the Aberdeen City (Fever) Hospital, one in Inverurie Infectious Diseases Hospital and one in Huntly Hospital; the remaining cases were treated at home.

#### CHICKEN-POX.

In 1931, 237 cases were notified, as compared with 360 in 1930. Three cases received treatment in Summerfield Hospital; the others were treated at home.

#### SMALL-POX.

No case was notified in 1931.

#### (b) Non-notifiable Infectious Diseases.

The three chief non-notifiable infectious diseases are measles, whooping cough and mumps. As these diseases are not compulsorily notifiable, it is impossible to get a true measure of their incidence. Intimation of cases is sent to the Health Department by Head Teachers. In 1931, 116 cases of whooping cough and 125 cases of measles amongst children of school age were so reported.

### 3.—HOUSING.

During the past six years the total number of new houses provided in rural areas in Aberdeenshire was 728. The number of new houses completed in 1931 was 93, and the number in course of erection at the end of the year was 25. The following are the particulars for each year since 1926 :—

Year.	New Houses.	In course of erection at end of year.	
1926	124	...	69
1927	111	...	107
1928	149	...	70
1929	169	...	33
1930	82	...	58
1931	93	...	25

In Table IX are shown the numbers of new houses completed in 1931, or in course of erection at the end of the year, in each of the Districts. The number of applications under the Housing (Rural Workers) Acts is also given.

TABLE IX.  
HOUSING IN COUNTY DISTRICTS—1931.

	Deer.	Ellon.	Garioch.	Deeside.	Turriff.	Aberdeen.	Alford.	Huntly.	Total.
<b>A.—Completed during 1931.</b>									
1. With aid of Subsidy—	—	—	—	14	—	28	—	—	42
(a) By Local Authority . . .	1	1	4	—	—	13	—	—	19
(b) By private enterprise . . .	3	2	—	4	—	10	5	8	32
2. By unassisted private enterprise									
<b>B.—In course of erection at 31st December, 1931.</b>									
1. With aid of Subsidy—	4	—	—	—	2	—	—	—	6
(a) By Local Authority . . .	1	—	1	—	—	6	—	—	8
(b) By private enterprise . . .	1	—	—	2	—	4	—	4	11
2. By unassisted private enterprise									
Totals . . . . .	10	3	5	20	2	61	5	12	118
Population . . . . .	24,585	12,583	11,625	10,974	10,044	23,756	7,659	6,197	107,423
Number of new houses completed in 1931, or in course of erection, per 1,000 of population . . . . .	4	24	43	18	18	26	65	19	109
Number of applications lodged during 1931 under Housing (Rural Workers) Acts . . . . .	152	22	18	13	25	44	4	5	283

*Housing (Rural Workers) Acts.*

The provisions of the Housing (Rural Workers) Act, 1926, continue to be taken advantage of to a remarkable extent. The Housing (Rural Workers) (Amendment) Act, 1931, enables Local Authorities to continue to give grants or loans until 1st October, 1936. These Acts are the most important housing enactments for rural areas, for, by their means, rural depopulation may be checked. Under these Acts the Local Authority may give a grant of two-thirds of the estimated cost of the works or a maximum sum of £100 in respect of each dwelling. The house, on completion of the work, must not exceed £400 in value, and must be for occupation of an agricultural worker or one of similar status.

*Housing (Rural Authorities) Act, 1931.*

The Housing (Rural Authorities) Act, 1931, which was passed on 31st July, 1931, enabled further State assistance to be given to County Councils for the provision, in rural areas, of houses for agricultural workers, or for persons of a similar economic condition. Under this Act the total State grant available was £2,000,000, and of this sum, £241,758 was allocated to Scotland. Applications for special assistance were made by 14 County Councils in Scotland. Aberdeen County Council applied for 400 houses, but were granted only 40.

*Housing (Scotland) Act, 1930.*

Under this Act it is the duty of every Local Authority to consider the needs of the District with respect to the provision of further housing accommodation for the working classes. Further, the Local Authority must submit to the Department of Health for Scotland a general statement of the measures proposed to be taken for dealing with housing conditions in their District, and the provision of further housing accommodation. The following three years' housing programme has been submitted to the Department of Health for Scotland :—

*General Statement of the Measures which the Local Authority have taken or propose to take during the three years ending 1933 for dealing with the housing conditions in their district, and the provision of further housing accommodation.*

1. Particulars of the measures to be taken under Section 5 of the Housing (Scotland) Act, 1925, for the systematic inspection of the houses in the area of the Local Authority, with special reference to the Housing (Inspection of District) Regulations (Scotland), 1928.
  - (a) All houses in the area, the condition of which made it desirable, in the opinion of the Medical Officer of Health or Sanitary Inspector, that the house should be inspected, have been so inspected by one of the Council's Medical and Sanitary Officers.
  - (b) At all inspections, examination is made of the conditions as provided for in Article 3 of the Regulations.
  - (c) The records prescribed in Article 4 of the Regulations are prepared and kept.
  - (d) Similar inspection, examination, and recording will be extended to any other house, the condition of which, in the opinion of the Council's Medical or Sanitary Officers, should be reviewed by the Council in terms of the Acts. In particular, each inspection, examination, and recording will extend to all houses occupied by farm servants, and reference is made to the returns forwarded to the Department by the Local Authority.

- (e) Arrangements have been made whereby all houses provided by the Authority, or reconditioned under and in terms of the Housing (Rural Workers) Acts, 1926 and 1931 (which already exceed 1.100), will be kept under systematic observation.
2. Arrangements for speedy consideration of reports submitted in terms of the Regulations.

In terms of the Council's general administrative scheme, such reports and all questions relating to housing have been referred or delegated to the Public Health Committee and to the Housing Sub-Committee. Where desirable, special remits to Sub-Committees are made for consideration and, if necessary, inspection. All recommendations of the Committee or Sub-Committee, with the reports thereon of the Finance Committee and, where appropriate, of the Property and Works Committee and the National Emergency Economy Committee, come before the Council at their first meeting. Normally, the Council and the Public Health Committee meet five and six times respectively during the year, but special meetings are held when necessary. The Housing Sub-Committee meets at frequent intervals, and the Finance and Property and Works Committees normally monthly.

3. Estimate of the number of houses required to meet the needs of the inhabitants of the County.

(a) To replace houses unfit for human habitation—

(1) Houses to be erected under the Housing (Rural Authorities) Act, 1931—

Inverallochy and Cairnbulg	.	.	.	.	.	6
Pitullie	.	.	.	.	.	2
New Pitsligo	.	.	.	.	.	2
Old Deer	.	.	.	.	.	2
Stuartfield	.	.	.	.	.	2
Kemnay	.	.	.	.	.	2
Tarland	.	.	.	.	.	2
Logie-Coldstone	.	.	.	.	.	2
Cuminestown	.	.	.	.	.	4
New Byth	.	.	.	.	.	4
Garmond	.	.	.	.	.	2
Lumsden	.	.	.	.	.	6
Bridgend of Forgue	.	.	.	.	.	2
Cairnie	.	.	.	.	.	2

— 40

(2) Houses constructed under the Housing (Financial Provisions) Act, 1924, and the Housing (Scotland) Act, 1930—

Tarland (plans under preparation)	.	.	.	.	4
Newhills	.	.	.	.	54
Elsewhere in County	.	.	.	.	126

— 184

(b) To abate overcrowding—

Newhills	.	.	.	.	.	.	34
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(c) To meet the normal growth of population—

*Note.*—Except in the suburban area and certain villages, the population is declining.

Aboyne . . . . .	6
Torphins . . . . .	8
Lumphanan . . . . .	8
Strichen . . . . .	4
Oldmachar . . . . .	20
Culter . . . . .	18
Tarland . . . . .	4
Insch . . . . .	2
Newhills . . . . .	12
	— 82
	<hr/> 340
	<hr/>

4. Estimate of the number of houses likely to be provided by the Council prior to October, 1933.

See replies to 3. It is hoped that the scheme sanctioned or under consideration, along with reconstructions under the Housing (Rural Workers) Acts, 1926 and 1931, and subsidy houses under the Housing (Scotland) Act, 1923, will provide at least 400 habitable houses prior to October, 1933. If the present rate of progress under the Rural Workers Acts is maintained, this estimate will be exceeded.

5. Particular areas or localities to be specially dealt with at an early date—

(a) Completed under approval given since May, 1930 (included in 3 (c)) . . . . .	18
(b) Plans in preparation—	
3 (a) (1) . . . . .	40
3 (a) (2) . . . . .	4
3 (c) . . . . .	52
	— 96
(c) Under consideration on recommendation of District Council—	
3 (a) (2) . . . . .	54
3 (b) . . . . .	34
3 (c) . . . . .	12
	— 100
(d) Under consideration . . . . .	126
	<hr/> 340
	<hr/>

6. Particulars of clearance or improvement areas contemplated:—

- (a) Fetterangus, and  
(b) New Byth.

These areas are being surveyed, and on the results of the consideration of the survey of the housing and economic conditions depends the question of whether or not these and other similar areas will be dealt with as clearance or improvement areas or under other powers.

#### 4.—DISINFECTIONS.

The number of official disinfections of premises by the several District Sanitary Inspectors appears in Table X.

TABLE X.

	Deer.	Ellon.	Garioch.	Deeside.	Turriff.	Aberdeen.	Alford.	Huntly.	Total.
After Scarlet Fever . . . .	40	24	15	5	9	37	13	10	153
„ Diphtheria . . . .	37	9	10	3	5	15	3	2	84
„ Enteric Fever . . . .	10	1	1	—	—	—	—	—	12
„ Tuberculosis . . . .	12	2	8	6	5	8	2	5	48
„ Other Infectious Diseases	—	7	6	16	7	4	1	8	49
Total . . . . .	99	43	40	30	26	64	19	25	346

Apart from the diminished incidence of infectious diseases, there has, during the past few years, been a gradual decrease in the number of premises officially disinfected. In the vast majority of cases, infection has a personal source, passing directly from one individual to another. Small-pox is sometimes imported in rag bales; typhoid fever may be conveyed by milk or water; but in most cases of diphtheria, scarlet fever, cerebro-spinal fever, small-pox, and the like, the source of infection is to be sought for in the patient, or in those who have been in contact with him. It is now being recognised that efficient disinfection, in most instances, consists of thorough cleansing of the bed clothes and premises, and free exposure to sun and air for several hours.

#### 5.—FACTORY AND WORKSHOPS ACT.

In 1931 there were 973 factories and workshops on the register. Details as to the number of inspections, notices served, defects found and remedied, appear in Table XI.

TABLE XI.

	Deer.	Ellon.	Garioch.	Deeside.	Turriff.	Aberdeen.	Alford.	Huntly.	Total.
Number on Register . . . .	265	106	106	131	87	143	74	61	973
„ of Inspections . . . .	74	80	94	111	140	109	90	38	736
Notices served under Section 2 (3), &c.	—	—	7	—	2	2	—	3	14
Defects found . . . . .	—	10	7	2	1	2	3	3	28
„ remedied . . . . .	—	10	7	2	1	2	3	2	27

## Section II.

### THE HEALTH OF THE BURGHS.

#### VITAL STATISTICS.

*Population.*—The population of the Burghs, as ascertained at the 1931 census, was 38,178.

As compared with the census figures for 1921, there was a decrease of 1,647.

The population of the several Burghs, as determined at the 1921 and 1931 censuses, are given below :—

TABLE I.

Burghs.	1921 Census.	1931 Census.	Increase or Decrease.
Ballater . . . .	1,542	1,198	— 344
Ellon . . . . .	1,261	1,300	+ 39
Fraserburgh . . . .	10,514	9,720	— 974
Huntly . . . . .	3,752	3,779	+ 27
Inverurie . . . . .	4,455	4,524	+ 69
Kintore . . . . .	741	755	+ 14
Oldmeldrum . . . .	1,015	980	— 35
Rosehearty . . . . .	1,267	1,079	— 188
Turriff . . . . .	2,152	2,298	+ 146
Peterhead . . . . .	13,126	12,545	— 581
Totals . . . . .	39,825	38,178	— 1,647

*Marriages.*—There were 328 marriages, representing a marriage-rate of 8·6 per 1,000 of population. The marriage-rate in 1930 was 9·4.

*Births.*—A record of the total number of births, the corrected birth-rates, the number of illegitimate births and the illegitimate birth-rates are given below.

TABLE II.

Burghs.	Number (including Illegitimate Births).	Birth-rate (corrected).	Illegitimate Births.	Illegitimate Birth-rate per 100 Total Births.
Ballater . . . .	11	9·2	2	18·2
Ellon . . . . .	28	21·5	4	14·3
Fraserburgh . . . .	193	19·9	18	9·3
Huntly . . . . .	74	19·6	10	13·5
Inverurie . . . . .	88	19·5	10	11·3
Kintore . . . . .	18	23·8	2	11·1
Oldmeldrum . . . .	31	31·6	4	12·9
Rosehearty . . . . .	21	19·4	3	14·2
Turriff . . . . .	39	17	5	12·8
Peterhead . . . . .	310	24·7	24	7·7
Totals . . . . .	813	21·3	82	10·08
Corresponding figures for 1930 . . . . .	837	21·7	91	10·9

*Deaths.*—There were 589 deaths, representing a death-rate of 15·4 per 1,000 of population.

**Causes of Death and Death-rate.**

The principal causes of death and the death-rate, with the number of deaths attributable to the several well-defined diseases or groups of diseases, are shown in Tables III and IV.

TABLE III.

Causes of Death	BURGHES										TOTAL
	Ballater	Ellon	Fraserburgh	Huntly	Inverurie	Kintore	Oldmeldrum	Rosehearty	Turriff	Peterhead	
Diseases of Heart and Blood Vessels . . .	4	2	15	12	9	—	2	4	8	38	94
Respiratory Diseases—											
Pneumonia . . . . .	—	—	12	6	4	—	—	3	2	9	36
Bronchitis . . . . .	1	1	10	2	4	4	3	2	2	10	39
Other . . . . .	1	1	—	1	—	1	—	—	—	2	6
Malignant Tumours . . .	4	3	14	8	7	4	2	3	7	21	73
Tuberculosis—											
Pulmonary . . . . .	1	—	4	1	—	2	1	—	3	5	17
Non-pulmonary . . . .	—	1	2	1	1	—	—	—	1	6	12
Kidney Diseases . . . .	1	2	4	2	—	—	1	—	1	11	22
Chief Epidemic Diseases—											
Diarrhœa . . . . .	—	—	—	—	1	—	—	3	—	1	5
Whooping Cough . . .	—	—	2	—	1	—	—	1	2	2	8
Diphtheria . . . . .	—	—	—	—	—	—	—	—	1	8	9
Measles . . . . .	—	—	—	—	—	—	—	—	—	—	—
Appendicitis . . . . .	—	—	1	1	1	—	—	—	1	1	5
Influenza . . . . .	—	—	—	1	1	2	—	1	5	1	11
Puerperal Sepsis, &c. . .	—	—	—	—	—	—	1	—	—	1	2
Diseases of Early Infancy .	—	1	11	1	1	1	—	2	2	15	34
Violence . . . . .	—	1	7	2	3	—	1	11	—	5	30
Other . . . . .	—	—	1	1	1	—	—	—	3	4	10
TOTAL . . . . .	12	12	83	39	34	14	11	30	38	140	413

TABLE IV.

Burghs	Number of Deaths	Death-rate per 1,000
Ballater . . . . .	12	10·0
Ellon . . . . .	12	9·2
Fraserburgh . . . . .	83	8·5
Huntly . . . . .	39	10·3
Inverurie . . . . .	34	7·6
Kintore . . . . .	14	18·5
Oldmeldrum . . . . .	11	1·02
Rosehearty . . . . .	30	27·8
Turriff . . . . .	38	16·5
Peterhead . . . . .	140	11·2
TOTAL . . . . .	413	10·8

### INCIDENCE OF THE COMMONER INFECTIOUS DISEASES.

In 1931 there were notified 53 cases of scarlet fever and 205 cases of diphtheria, a marked decrease in both diseases, the notification numbers in 1930 being 70 and 281 respectively.

Five cases of typhoid or para-typhoid fever were notified in 1931 and all of them received institutional treatment. Their distribution was as follows:—

Peterhead	.	.	.	.	.	.	.	.	3 cases
Fraserburgh	.	.	.	.	.	.	.	.	2 „

One case of undulant fever was brought to the notice of the Public Health Department. The case was treated at home. It would appear that undulant fever is much more common than used to be supposed. It is believed that the disease is conveyed chiefly through drinking raw milk, or eating raw milk products.

### HOUSING.

A record of the housing activities in the Burghs appears in Table V. The Housing (Rural Workers) Acts are applicable to the Burghs, and during the year there were, in all, 24 applications for grants.

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TABLE V.  
HOUSING IN BURGHS—1931.

	Ballater.	Ellon.	Fraserburgh.	Huntly.	Inverurie.	Kintore.	Oldmeldrum.	Roschearty.	Turriff.	Peterhead.	Total.
A.— <i>Completed during 1931.</i>											
1. With aid of Subsidy—											
(a) By Local Authority . . .	—	6	—	4	20	—	—	—	—	16	46
(b) By private enterprise . . .	—	—	2	—	2	1	—	—	—	2	7
2. By unassisted private enterprise	—	—	1	—	1	1	1	—	2	1	7
B.— <i>In course of erection at 31st December, 1931.</i>											
1. With aid of Subsidy—											
(a) By Local Authority . . .	—	12	4	8	—	8	—	—	—	36	68
(b) By private enterprise . . .	—	—	—	—	—	1	—	—	—	—	1
2. By unassisted private enterprise	—	2	—	—	—	—	1	—	—	—	3
Total . . . . .	—	20	7	12	23	11	2	—	2	55	132
Population . . . . .	1,198	1,300	9,720	3,779	4,524	755	980	1,079	2,298	12,545	38,178
Number of new houses completed in 1931, or in course of erection, per 1,000 of population . . . . .	—	15·4	·7	3·2	5·1	14·6	2	—	·9	4·4	3·4
Number of applications lodged during 1931 under Housing (Rural Workers) Acts . . . . .	—	—	12	4	1	—	—	—	—	7	24

### WATER SUPPLIES.

During the year complaints were lodged as to the water supply of the Burgh of Peterhead. The City Engineer and the Medical Officer of Health were instructed to draw up a report for submission to the Town Council, and a copy of this report is herewith appended.

*Joint Report by the Medical Officer of Health and the City Engineer of the City of Aberdeen.*

In the last week in September unofficial complaints were made by residents in the Burgh of Peterhead that the hot water supplying sinks and bathrooms had a "fishy" odour, and that cold water, when warmed, had this same objectionable smell.

*Procedure.*

When these complaints were made, samples of water were taken from houses in the Burgh, from the three filter-beds, and from the reservoirs.

The results of the examination proved that the water was of good quality, both chemically and bacteriologically, and that the odour was due to the excessive presence of low forms of life, known as infusoria. The following statement was transmitted to the Town Clerk, on 12th instant, for insertion in the public press:—

"The investigation into the complaints regarding the quality of the water supply has now been completed. After exhaustive tests the officials of the Health Department have found that, chemically and bacteriologically, the water is of good quality, and that it can be used without the slightest danger to health. There is, however, in the water an excess of low forms of life, known as infusoria, which are causing the water to have a "fishy" smell, especially when heated. These infusoria are naturally present in the water and are necessary for the efficient filtering process. Only when present in excess do they impart an unpleasant character to the water. The presence of these infusoria has no harmful effect on health, but steps have now been taken for removing any cause for complaint.

Extensive scouring operations are to be carried out on an early date, and while this work is in progress the water will be discoloured and contain a good deal of sediment."

Notwithstanding this reassuring statement, a certain amount of alarm was evinced by a small proportion of the population.

Meanwhile, Mr. J. Dickie, the Burgh Surveyor, was unfortunately absent from duty on account of illness, and, with the concurrence of the Town Clerk and the Convener of the Water Committee, I called in Mr. T. F. Henderson, City Engineer, Aberdeen, who, in this investigation, is a joint reporter with me.

On 9th October, Mr. Henderson visited Forehill along with Dr. MacBean and myself. As a result, it was decided that (1) water should be supplied to the town direct from the reservoirs, (2) the condition of the filter-beds should be investigated, and (3) a preliminary course of chlorination of the filter-beds should be adopted. The extra pressure caused by taking the water direct from the reservoirs, which give twenty feet additional head of water, led to removal of sediment from the mains and its appearance in the domestic supply.

Again, on 22nd October, Mr. Henderson and I met the Town Council at Forehill and thereafter an informal discussion took place at the Council Chambers.

*Condition of Filter-beds.*

The filter-beds have been in operation for over twenty years. The time is now opportune for their complete renewal, but, for financial and other reasons, such renewal must be gradual. It should again be stressed that the presence of these low forms of life in the filters is in no manner deleterious to health. The filters are, however, not quite up to present-day standards of purity, and purifying by washing would not, in our opinion, ensure a reasonable degree of purity.

*Conclusions and Recommendations.*

- (1) The filter media should be completely renewed with fresh materials. We recommend that pit sand, properly graded, be used in preference to sea sand for the upper layers.
- (2) Complete renewal of the filter media will entail an approximate expenditure of £700-£800 each.
- (3) One filter should be renewed at a time, from the foundation. This work should be put in hand at once.
- (4) Two filters will be sterilised by chlorination. If the sterilisation of the filter media does not remove the objectionable smell, then some means must be adopted to sterilise the water supply to the Burgh during the period of renewal of the filter media.
- (5) Domestic storage cisterns should be thoroughly cleaned out.
- (6) It is further recommended that sections of the piping throughout the town be examined to ascertain what degree of corrosion or erosion may have taken place.
- (7) During the last week extensive scouring operations have, on our recommendation, been carried out, and it naturally follows that impurities will be evident in the water. Every morning, before use, the water in each house should be run for a matter of three or four minutes.
- (8) We wish again to put on record that the inhabitants of Peterhead need have no fear that health has been, or will be impaired from the use of the existing water supply, which is wholesome in every respect. We deprecate the fact that any of the population should have been alarmed by the unpleasant odour of the water, and we again assure them that the water is fit for drinking purposes in every respect.

(Signed) HARRY J. RAE,  
*Medical Officer of Health.*

(Signed) THOMAS F. HENDERSON,  
*City Engineer, City of Aberdeen.*

County Health Department,  
Aberdeen, 24th October, 1931.



### *Section III.*

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## MATERNITY AND CHILD WELFARE SERVICES.

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The Maternity and Child Welfare Scheme embraces the eight Districts and ten Burghs within the County.

The Scheme is preventive in character and is even now only in its infancy. One of its chief ideals is to endeavour to ensure that the health of the pre-school child is conserved so that the child may enter school physically fit. In actual practice the percentage of preventable physical defects in entrants is in the neighbourhood of 20.

The objects of the Scheme are (1) the care of mothers before, during and after confinement; (2) the preservation of the health of children until they attain school age; (3) the home visitation of mothers and infants by the district nurses, who, in this area, act as part-time health visitors; (4) the adoption of measures for the prevention and treatment of abnormal conditions in mothers and children; (5) the provision of institutional accommodation for women during confinement and for mothers suffering from puerperal fever or from puerperal pyrexia; (6) the provision of adequate institutional treatment for children suffering from ophthalmia neonatorum, or for complicated cases of measles and whooping cough; (7) the supply of "home helps" in special cases, e.g., when a mother is affected with puerperal insanity; and (8) the establishment of Child Welfare Centres, the main function of which is educational.

The success of such a scheme as this depends very largely on two factors, namely, the co-operation of the general practitioners and the assistance rendered by district nurses and voluntary workers. Voluntary organisations, such as Women's Rural Institutes, deserve the highest praise for their assistance in this work.

Child Welfare Clinics were established in Huntly and Inverurie in 1926, and at St. John's Clinic, Bucksburn, in 1928. A Child Welfare Clinic was also established in Ellon in 1929. The Peterhead Child Welfare Clinic has operated for several years with increasing success, its various activities being well maintained; it is conducted by an energetic and resourceful Committee, ably supported by Miss Walker, the official health visitor, who has secured in a remarkable way the confidence of the mothers.

No clinic run on purely official lines will achieve success; there must be the associated influence of the voluntary worker, and it matters not whether she belongs to the Nursing Association, to the Women's Rural Institute, to the V.A.D. or other organisation.

#### **Births and Birth-rates.**

The population of the area covered by the Scheme was 145,601. The number of births registered was 2,892, and the birth-rate, 19·9. In 1930 the birth-rate was 20·7. Of the 2,892 births, 419 were illegitimate, giving an illegitimate birth-rate of 14·5 per 100 births, as against 15·1 in 1930.

#### **Infantile Mortality.**

"Infantile Mortality" indicates the number of children dying under one year of age. In 1931 the infantile mortality was 245. The infantile mortality rate, or the number of deaths in children under one year of age per 1,000 registered births was 84·7, as compared with 78·4 in 1930.

The causes of the 245 infantile deaths are shown in the following table :—

1931.

COUNTY OF ABERDEEN—INFANTILE MORTALITY.

Causes of Death	Number of Deaths.
Measles . . . . .	4
Whooping Cough . . . . .	20
Other Epidemic Diseases . . . . .	3
Tuberculous Meningitis . . . . .	2
Tuberculosis of Respiratory System . . . . .	1
Bronchitis . . . . .	16
Influenza . . . . .	1
Pneumonia . . . . .	46
Other Diseases of Respiratory System . . . . .	5
Diarrhœa and Enteritis . . . . .	9
Nephritis . . . . .	1
Diseases of Early Infancy and Malformations . . . . .	100
Violent Deaths . . . . .	6
Other Defined Diseases . . . . .	27
Causes Ill-defined or Unknown . . . . .	4
Total . . . . .	245

Maternal Mortality.

During 1931 there were 13 deaths of women from causes associated with pregnancy or child-birth. Of these 13 deaths, 10 were classified by the Registrar-General as due to pregnancy or child-birth. Details regarding all of these deaths were obtained from the attending medical practitioners.

In four cases death followed abortion, in another, death took place during labour, and in another, labour was stated to have occurred prematurely.

Ten cases were attended by private practitioners and three were treated in public institutions. Five of the patients died at home and eight in public institutions.

Twenty-two cases of puerperal fever were notified. The number notified in 1930 was also 22. Twenty of the 22 cases were treated in the special puerperal wards of the Aberdeen City Hospital, and of these, three died.

Seventeen cases of puerperal pyrexia were notified, the number notified in 1930 being 19. Of the 17 cases notified, eight were treated in institutions in Aberdeen. The remaining nine were treated at home, and of these, one died.

The Regional Medical Officer for Mother and Child Welfare made a special enquiry into all the cases of puerperal fever and pyrexia, and in several cases was called into consultation by the practitioners in attendance.

Midwives (Scotland) Act, 1915.

The report for the year 1931 under the Midwives (Scotland) Act, 1915, which has already been transmitted to the Central Midwives Board, is herewith submitted.

The number of midwives who, during the year, intimated their intention to practise in the district was seven.

BIRTHS IN AREA OR DISTRICT.

Total Number of Births during 1931	Total Number of Deaths of New-born Children (within ten days) during 1931	Actual Number of Births attended by Midwives during 1931	Actual Number of Deaths of New-born Children (within ten days) occurring in the practice of Midwives during 1931	Actual Number of Cases not attended by a Doctor or Midwife during 1931	
				Births	Deaths
2786	63	215	8	—	—

## CASES OF OPTHALMIA NEONATORUM.

Total Number of Cases during 1931	Actual Number of Cases occurring in the practice of Midwives during 1931	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1931
8	—	—

## CASES OF PUERPERAL SEPSIS.

Total Number of Cases during 1931	Total Number of Deaths during 1931 (Corrected for Transfers)	Actual Number of Cases occurring in the practice of Midwives during 1931	Actual Number of Deaths occurring in the practice of Midwives during 1931	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1931	
				Cases	Deaths
22	3	—	—	—	—

## CASES OF PUERPERAL PYREXIA.

Total Number of Cases during 1931	Total Number of Deaths during 1931	Actual Number of Cases occurring in the practice of Midwives during 1931	Actual Number of Deaths occurring in the practice of Midwives during 1931	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1931	
				Cases	Deaths
17	1	—	—	—	—

## CASES OF STILL-BIRTH (DEAD BORN).

Total Number of Cases during 1931	Actual Number of Cases occurring in the practice of Midwives during 1931
43	9

## CASES OF EMERGENCY.

Notifications were received from midwives of having in 25 cases sent for medical assistance. In all cases medical assistance was obtained. In 19 cases the assistance was required for the mother and in six cases for the child.

## SUMMARY OF CASES.

1. During pregnancy	. . . . .	4
2. During parturition	. . . . .	14
3. After parturition	. . . . .	1
4. For infant	. . . . .	6
		—
Total	. . . . .	25
		==

£53 4s. 6d. was paid to doctors for the above services.

## Provision of Foods.

During the year, food and milk were granted to 25 mothers and to 28 children. A relatively large quantity of Virol and Glaxo was supplied at cost price.

The total sum expended on foods was £101 12s. 5d.

## Measles and Whooping Cough.

No definite arrangements have been made for the institutional treatment of County children suffering from these diseases. Where, however, patients cannot be properly attended to and nursed at home, accommodation is obtained either in one of the County Infectious Diseases Hospitals or in the City Hospital, Aberdeen.

#### **Ophthalmia Neonatorum.**

Eight cases of ophthalmia neonatorum were notified in 1931. All of these were notified by general practitioners; all belonged to the landward area. Of the 8 cases, 7 were treated in City Hospital, Aberdeen; the remaining one was treated at home. In no case was the vision impaired.

#### **Epidemic Diarrhœa.**

Nine deaths from diarrhœa and enteritis occurred amongst children under one year of age. Epidemic diarrhœa did not make its appearance in the County during the year under review.

#### **Provision for Sick Children.**

Ailing children under five years of age may be admitted to (1) the Aberdeen Royal Hospital for Sick Children, (2) special children's wards of the Aberdeen City Hospital, and (3) Burnside Home. A limited number of beds is set aside in Linn Moor Convalescent Home, Culter, for the reception of pre-school children.

#### **Home-helps.**

No home-helps were supplied by the County Council during 1931.

#### **Maternity Hospital and Ante-Natal Annexe.**

The arrangements made some time ago between the County Council and the Maternity Hospital Directors are still in operation. The County patients are admitted to this institution at a weekly charge of 30s.

In 1931, 80 County patients were treated in the Maternity Hospital and 58 in the Ante-Natal Annexe. The cost to the County was £119 3s. 4d., as compared with £133 7s. 6d. in 1930.

#### **Educational Measures.**

In 1931 there were in existence five Child Welfare Clinics, situated at Peterhead, Huntly, Inverurie, Bucksburn and Ellon. Lectures were delivered by general practitioners, by public health officials, by district nurses and others interested in the welfare of the mother and child. It is hoped that in the near future new clinics will be established in the more populous areas in the County.

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## Section IV.

### SCHOOL MEDICAL SERVICES.

#### Number of Schools and Pupils.

The number of schools in the area is 236. The number of children on the register as at 31st July, 1931, was 26,037. The percentage of attendance was 90·3, as compared with 92·4 in the previous year.

#### Number of Visits to Schools.

The number of visits by the Medical Officers to schools for routine or systematic examination was 484. The number of special visits, that is, visits other than for purposes of systematic examination, was 479. The corresponding figures for 1929-1930 were 479 routine and 498 special examinations.

### THE PHYSICAL CONDITION OF THE SCHOOL CHILDREN.

#### A. Total Number of Children Examined—

##### (a) Systematic Examination—

Beginners . . . . .	2,843
Nine-year-olds . . . . .	2,930
Twelve-year-olds . . . . .	2,046
Sixteen-year-olds . . . . .	182
	8,001

##### (b) Special cases examined at special visits and re-examinations . . . . .

8,284

Total . . . . . 16,285

#### B. Number of children notified to parents as suffering from defects 1,371

Number placed under observation for re-examination at subsequent visits, without treatment being recommended . 3,301

#### C. Number of Children receiving attention—

Out of 1,591 defects in children, excluding teeth, 1,032, i.e. 64·8 per cent., received attention during the year.

In the following statements 8,001 is the number of pupils who underwent the full systematic examination, the only exception being the statement relating to visual acuity. The eyesight of entrants is not tested, and the total number of systematic cases whose eyesight was tested was 5,158, as compared with 5,690 in the previous year.

#### D. Clothing—

Clothing was found to be insufficient, dirty, or in bad repair in only 47, or ·5 per cent. Three special cases were found to be unsatisfactory in this respect.

#### E. Footgear—

Footgear was found to be unsatisfactory in 8, or ·1 per cent., and in two special cases.

*F. Average Height and Weight of Children—*

TABLE I.

Boys.					
No. of Children.		Average Age in years.		Average Height in inches.	Average Weight in lbs.
73	.....	$4\frac{6}{12}$	.....	39·2	38·7
731	.....	$5\frac{7}{12}$	.....	42·3	42·7
580	.....	$6\frac{4}{12}$	.....	44·6	45·1
66	.....	$7\frac{6}{12}$	.....	45·2	47·2
795	.....	$8\frac{5}{12}$	.....	47·5	51·6
693	.....	$9\frac{3}{12}$	.....	49·4	57·1
588	.....	$11\frac{6}{12}$	.....	51·1	68·2
477	.....	$12\frac{4}{12}$	.....	55·2	73·9
43	.....	$15\frac{7}{12}$	.....	64·5	119·5
29	.....	$16\frac{2}{12}$	.....	65·3	123·7

GIRLS.					
No. of Children.		Average Age in years.		Average Height in inches.	Average Weight in lbs.
81	.....	$4\frac{5}{12}$	.....	39·4	38·8
750	.....	$5\frac{4}{12}$	.....	42·6	42·8
503	.....	$6\frac{3}{12}$	.....	44·5	43·7
59	.....	$7\frac{3}{12}$	.....	45·4	47·3
766	.....	$8\frac{6}{12}$	.....	47·5	50·8
676	.....	$9\frac{4}{12}$	.....	51·2	57·6
582	.....	$11\frac{6}{12}$	.....	53·7	69·8
399	.....	$12\frac{4}{12}$	.....	55·8	75·3
74	.....	$15\frac{6}{12}$	.....	62·3	109·9
36	.....	$16\frac{7}{12}$	.....	63·5	118·4

*Consumption of Milk.*

It had been shown by the provision of milk to school children in various schools, including Peterhead North School, that this food was of immense value to the growing child. No statistics are available as to the average amount of milk consumed per head of the population in Scotland. Certain other countries publish figures, but the method of arriving at the average consumption is, in several cases, of at least doubtful accuracy.

The Department of Health for Scotland, in order that they might have reasonably reliable data, asked the sanction of the Education Committee to an enquiry being made through the schools. This was agreed to, and leaflets were issued to children in about half the County schools, and the schools chosen were representative of the whole. The head teachers gave the utmost assistance, and leaflets were in many cases also issued to households where there were no children.

A belief had been expressed that such an enquiry would be resented as prying into domestic affairs, but the leaflets gave no indication of the households to which they referred, and in practically no case was the information refused.

The replies indicated that on the 11th June, 1931, 46,400 people in Aberdeenshire consumed 47,731 pints of milk. The 46,400 consumers were, 21,157 under 15 years of age, and 25,243 over 15. The average was lowest in the coastal towns and villages; in Inverallochy it was 37 pint, whilst in Peterhead, rather over 5. In one or two purely country areas the average was 3 pints. For the whole area covered by the enquiry, it was 1·02 pints.

The Department of Health for Scotland are analysing many thousands of returns relating to individual households, and will soon be in a position to give authoritative figures which will prove most valuable to Local Authorities in considering nutritional problems.

*G. Cleanliness of Head and Body—**(a) Head—*

Dirty or Nits . . .	307 or 3·8	per cent.
Verminous . . .	57 or ·7	„
Special cases . . .	68	

*(b) Body—*

Dirty . . .	24 or ·3	„
Verminous . . .	24 or ·3	„
Special cases . . .	25	

*H. Condition of Skin—**(a) Head—*

Ringworm . . .	7 or ·08	„
Impetigo . . .	37 or ·4	„
Favus . . .	—	—
Other diseases . . .	—	—
Special cases . . .	12	

*(b) Body—*

Ringworm . . .	—	—
Impetigo . . .	8 or ·1	„
Scabies . . .	1 or ·01	„
Other diseases . . .	6 or ·07	„
Special cases . . .	2	

*I. Nutrition—*

Above average . . .	630 or 7·9	„
Average . . .	7,028 or 87·8	„
Below average . . .	362 or 4·5	„
Very bad . . .	1 or ·01	„
Special cases . . .	2	

*J. Teeth—*

Sound . . .	1,028 or 12·8	per cent.
1-4 Decayed . . .	5,942 or 74·3	„
5 or more Decayed . . .	978 or 12·2	„
Oral sepsis . . .	53 or ·7	„
Special cases . . .	25	

*K. (a) Nose—*

Catarrh . . .	249 or 3·1	„
Obstruction . . .	26 or ·3	„
Other diseases . . .	1 or ·01	„
Special cases . . .	3	

*(b) Throat—**Tonsils—*

Slightly enlarged . . .	696 or 8·7	„
Markedly enlarged . . .	147 or 1·8	„

*Adenoids—*

Probably present . . .	146 or 1·8	„
Present . . .	4 or ·05	„
Other diseases . . .	18 or ·2	„
Special cases . . .	118	

*(c) Lymphatic Glands—*

## 1. Submaxillary—

Palpably enlarged . . . .	1,514 or 18·9	per cent.
Markedly enlarged . . . .	8 or ·1	„
Suppurating . . . .	—	—
Cicatrices . . . .	66 or ·8	„
Special cases . . . .	8	

## 2. Cervical—

Palpably enlarged . . . .	646 or 8	„
Markedly enlarged . . . .	8 or ·1	„
Suppurating . . . .	2 or ·02	„
Cicatrices . . . .	41	

*L. External Eye Diseases—*

Blepharitis . . . .	166 or 2	„
Conjunctivitis . . . .	20 or ·2	„
Corneal opacities . . . .	6 or ·07	„
Squint . . . .	120 or 1·5	„
Other diseases . . . .	29 or ·4	„
Special cases . . . .	9	

*M. Visual Acuity (number examined 5,158)—*

Good vision . . . .	4,685 or 90·8	„
Fair vision . . . .	291 or 5·6	„
Bad vision . . . .	182 or 3·5	„
Special cases . . . .	69	

(The vision of entrants is not tested.)

*N. Ears—*

Otorrhœa . . . .	37 or ·46	„
Wax . . . .	30 or ·4	„
Other diseases . . . .	8 or ·1	„
Special cases . . . .	1	

*O. Hearing—*

Slightly deaf . . . .	18 or ·2	per cent.
Markedly deaf . . . .	1 or ·01	„
Special cases . . . .	2	

*P. Speech—*

Defective articulation . . . .	48 or ·6	„
Stammering . . . .	7 or ·09	„
Special cases . . . .	4	

*Q. Mental Condition—*

Backward . . . .	73 or ·9	„
Mentally defective . . . .	8 or ·1	„
Special cases . . . .	58	

*R. Heart and Circulation—*

Acquired organic disease . . . .	79 or 1	„
Congenital organic disease . . . .	26 or ·3	„
Functional disease . . . .	172 or 2·1	„
Anæmia . . . .	195 or 2·4	„
Special cases . . . .	10	



*S. Lungs—*

Chronic bronchitis . . .	51 or	·6	per cent.
Tuberculosis . . .	1 or	·01	
Suspected tuberculosis . . .	1 or	·01	„
Other diseases . . .	39 or	·5	„
Special cases . . .	17		

*T. Nervous System—*

Epilepsy . . .	3 or	·04	„
Chorea . . .	1 or	·01	„
Paralysis . . .	9 or	·1	„
Other diseases . . .	2 or	·02	„
Special cases . . .	1		

*U. Tuberculosis (Non-pulmonary)—*

Glandular . . .	3 or	·04	„
Bones and joints . . .	8 or	·1	„
Abdominal . . .	1 or	·01	„
Skin . . .	—	—	
Other forms . . .	1 or	·01	„
Special cases . . .	3		

*V. Rickets—*

Slight rickets . . .	21 or	·3	„
Marked rickets . . .	—	—	
Special cases . . .	1		

*W. Deformities—*

Congenital . . .	45 or	·56	„
Acquired . . .	28 or	·3	„
Special cases . . .	1		

<i>X. Infectious and Contagious Diseases</i> . . .	39 or	·5	„
Special cases . . .	40		

<i>Y. Other Diseases and Defects</i> . . .	187 or	2·3	„
Special cases . . .	43		

**Dental Inspection and Treatment.**

<i>Inspections—</i>	Whole-time Dentists.	Part-time Dentists.
Number of schools inspected . . .	105	10
Number of scholars inspected . . .	8,167	1,989
Number of scholars with sound teeth . . .	2,762	505
Percentage with sound teeth . . .	33·8%	25·3%
Number of cases where parents were notified	5,405	1,484
Number of consents . . .	3,366	937
Percentage of consents . . .	62·3%	63·1%

*Treatment—*

Number of schools visited	100	...	6
Number of scholars recommended and treated	3,294	...	—
Total number treated, including "specials"	3,537	...	704
Number of extractions—			
Temporary	3,535	...	818
Permanent	1,492	...	229
Number of fillings—			
Temporary	401	...	40
Permanent	1,845	...	380
Amount of fees received		£59 7 6	

A scheme of dental treatment for school children was instituted in the County in 1921. The percentage agreeing to treatment was, in the early days, under 30; this, gradually increasing to 46 in 1925, necessitated the appointment of another whole-time dentist. Now, the percentage of consents is over 60, and it is no longer possible, without increasing the dental staff, to give adequate attention to the children in all the schools once a year, which is the maximum interval that can be allowed if treatment is to be effective. It is unlikely that a sound tooth will become unsaveable within this time.

It is ever the aim of the dental surgeons to preserve the teeth, and filling is done in preference to extraction whenever possible. Unfortunately, many parents delay giving their consent until their children have repeated attacks of toothache, and by that time it too often happens that extraction is the only remedy.

**Eye Treatment.**

Dr. Galloway examined 668 cases, as compared with 618 in 1929-1930.

Centres Visited.	Number of Cases Treated.
Turriff . . . . .	66
Strichen . . . . .	17
Maud . . . . .	19
Huntly . . . . .	81
Oldmeldrum . . . . .	20
Kenmear . . . . .	14
Ellon . . . . .	36
Inverurie . . . . .	42
Peterhead . . . . .	120
Insch . . . . .	35
Fraserburgh . . . . .	79
Buckburn . . . . .	15
Alford . . . . .	38
Aboyne . . . . .	14
Ballater . . . . .	19
Aberdeen . . . . .	53
Total . . . . .	668

**Analysis of cases:—**

Spectacles ordered	566
Spectacles satisfactory or unnecessary	97
Buphthalmos	1
Blepharitis	1
Conjunctivitis	1
Corneal nebulæ	1
Epiphora	1
Total . . . . .	668

In those children for whom spectacles were ordered, the various refractive errors occurred in the following proportions :—

Hypermetropia . . . . .	277 = 48·93 per cent.
Hypermetropic astigmatism . . . . .	111 = 19·60 „
Myopia . . . . .	63 = 11·11 „
Myopic astigmatism . . . . .	72 = 12·72 „
Mixed astigmatism . . . . .	43 = 7·59 „

Convergent strabismus occurred in 22·38 per cent. of the cases of hypermetropia, and in 2·70 per cent. of the cases of hypermetropic astigmatism.

Among the refraction cases, the following conditions were noted :—Corneal nebulae (3 cases); conjunctivitis; strumous ophthalmia; blepharitis; vitreous opacities; partial ptosis; congenital cataract; posterior polar cataract; aphakia; adherent leucoma and anterior polar cataract; nystagmus; albinism; left anterior capsular cataract, with vision of 6/24 (disadvised from entering Air Force).

One boy with very defective vision from old strumous keratitis was specially notified to the Health Department, as also were 38 cases of high refractive errors: of these, 13 were cases of high myopia, from 6 to 10 years of age, and ranging from -6D to -16D.

A case with one eye blind from secondary cataract and glaucoma was also specially examined.

## Section V.

### TUBERCULOSIS SERVICES.

Adequate facilities are now available in the County for the diagnosis, treatment and supervision of all forms of tuberculosis.

One central dispensary and five district dispensaries serve the various areas, to which cases may be sent for examination. Cases requiring institutional treatment are now almost entirely accommodated within the County at Woodend Hospital, Aberdeen, and Newhills Sanatorium, Bucksburn. A number of beds are also available for tuberculosis patients in the City Hospital, Aberdeen, Noranside Sanatorium, Fern, by Brechin, Peterhead Burgh Hospital, Thomas Walker Hospital, Fraserburgh, Inch and District War Memorial Hospital, Inch, and Kincardine O'Neil War Memorial Hospital, Torphins.

Both pulmonary and non-pulmonary cases are dealt with at Woodend Hospital, where specialist services and modern operative technique are employed. Linn Moor Convalescent Home, Culter, continues to function as an invaluable "preventorium" for children up to thirteen years of age and full advantage is made of the 27 beds allotted to the County.

In addition, a comprehensive scheme of domiciliary treatment provides shelters, drugs and additional food to many cases.

#### STATISTICS.

The total number of cases notified was 261, as compared with 255 in 1930. In addition to the 261 primary notifications, there were 5 "transfers," that is, patients who, having been found to be suffering from tuberculosis in other areas and having been notified to the Medical Officers of Health of those areas, were again notified to the County Medical Officer of Health on coming to reside in Aberdeenshire. There were also 9 re-notifications of cases who had been previously notified in the County, or had been notified by more than one practitioner.

Of the 261 cases notified, 127 suffered from pulmonary tuberculosis and 134 from non-pulmonary tuberculosis. The distribution of these cases in age and sex groups appears in Table I.

TABLE I.

Number of Cases notified as suffering from Tuberculosis in 1931.

		Under 5.	5 and under 10.	10 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 65.	65 and upwards.	Total.
Pulmonary	Males .	1	4	2	14	11	7	6	4	49
	Females	7	2	8	21	21	8	10	1	78
Non-Pulmonary	Males .	16	13	19	16	5	3	3	—	75
	Females	11	11	6	21	5	2	3	—	59
Total . . . .		35	30	35	72	42	20	22	5	261

The number of pulmonary cases shows a slight increase and the non-pulmonary a decrease as compared with the previous year.

### Sources of Notifications.

The sources of the notified cases were as follows :—

1. Notified by General Practitioners . . . . .	240
2. „ „ Medical Officers of Medical and Surgical Hospitals . . . . .	16
3. „ „ Medical Officers of Mental Institutions . . . . .	1
4. „ „ County Medical Officers of Health . . . . .	4
5. „ „ Medical Officers of Health and of other areas ("Transfers") . . . . .	5
6. "Re-notifications" . . . . .	9
Total . . . . .	275

### Localisation of Disease.

The parts of the body affected in the 134 non-pulmonary cases were :—

1. Glands . . . . .	78
2. Bones and joints . . . . .	27
3. Brain membranes . . . . .	9
4. Abdomen . . . . .	14
5. Other sites (including lupus) . . . . .	6
Total . . . . .	134

### Occupational Incidence.

No special predisposing occupational factors exist in Aberdeenshire.

Of the 261 primary notifications, 128 were males. Of these, 37 were schoolboys, 23 were farm workers and 3 were general labourers.

With regard to female notifications, there were 133, of whom 30 were housewives, 27 were schoolgirls and 29 domestic servants.

In considering the above factors it will be seen that the number of pulmonary cases shows a slight increase as compared with 1930, but is less than the numbers for 1929 and 1928. It will also be seen that pulmonary tuberculosis is most prevalent between the ages of 15 and 35 and affects females more than males. This year there is a marked increase in the number of domestic servants notified. The non-pulmonary cases show a slight decrease as compared with last year, but still remain too high. The majority are children under 9 years suffering from enlarged neck glands due, in many cases, to the ingestion of cow's milk containing tubercle bacilli. The provision of tubercle-free milk would materially diminish this and allied forms of non-pulmonary tuberculosis.

### Mortality.

The number of cases who were notified in 1931, and who died before the end of the year, was 38. The percentage of deaths to notifications within the year was 15, as compared with 11 in 1930, 9·8 in 1929, 10·9 in 1928 and 11 in 1927.

All forms of tuberculosis accounted for 104 deaths, and of these 74 were pulmonary and 30 non-pulmonary deaths. The total number of deaths in 1930 was 108; in 1929, 113; in 1928, 139; in 1927, 132; and in 1926, 107.

The total number of deaths from tuberculosis in the County, namely, 104, represents a death-rate of 71·4 per 100,000. The 74 deaths attributable to pulmonary tuberculosis represent a death-rate of 50·8 per 100,000.

Throughout Scotland, in 1931, deaths from all forms of tuberculosis numbered 4,203, equivalent to a death-rate of 87 per 100,000. Of the 4,203 deaths, 3,002 were ascribed to tuberculosis of the lungs, and this number equals a death-rate of 62 per 100,000.

In Table II are given the ages at death, in five age-groups, amongst pulmonary deaths during the past six years.



TABLE II.

Age Groups.	1931.	1930.	1929.	1928.	1927.	1926.
Under 15 years .	7	5	5	3	5	6
15 years—25 years .	13	18	13	31	20	18
25 „ —45 „ .	32	26	37	44	47	34
45 „ —65 „ .	18	17	20	21	25	19
Over 65 years .	4	—	5	3	5	3
Total .	74	66	80	102	102	80

**TREATMENT.****1. Institutional Treatment.**

The distribution of the 261 primary cases is shown in Table III.

TABLE III.

	Pulmonary.	Non-pulmonary.
A. Admitted to approved institutions .	86 — ...	76 —
B. Not admitted to approved institutions because—		
(1) Refused to go to institutions .	— 6 ...	— 1
(2) Died before commencement of institutional treatment .	— 3 ...	— —
(3) Inmates of asylum, &c. .	— 1 ...	— —
(4) Inmates of voluntary hospitals	— 8 ...	— 5
(5) Visitors or left area .	— — ...	— —
(6) Unsuitable for institutional treatment or such treatment not required .	— 21 ...	— 47
(7) Awaiting institutional treatment at end of year .	— 2 ...	— 5
	86 41 ...	76 58
Total .	127 ...	134

From Table III it will be seen that 162 of the notified primary cases received institutional treatment, but the actual number of new cases treated in 1931 includes—

- (1) Those who may have been notified in previous years but who received institutional treatment for the first time in 1931.
- (2) Patients sent to tuberculosis institutions for diagnostic purposes only.
- (3) Patients sent to Linn Moor Convalescent Home, Culter. Practically none of these are notified cases.

In the following Table is given the distribution in sanatoria and hospitals of those primarily notified in 1931, of those who were notified prior to 1931 but who received treatment for the first time in that year and of observation and pre-tuberculous cases:—

TABLE IV.

Institutions.	Insured.		Uninsured.		Total.
	Male.	Female.	Male.	Female.	
Sanatoria . . . . .	5	5	1	7	18
Hospitals . . . . .	33	22	45	62	162
Linn Moor Convalescent Home .	—	—	22	15	37
Total . . . . .	38	27	68	84	217



### Duration of Treatment.

The average duration of stay in institutions was 165 days, as compared with 212 days in 1930. It has been found that modern methods as applied at Woodend Hospital to both pulmonary and non-pulmonary tuberculosis shortens, considerably, the time taken to arrest the disease. In consequence, more patients have received active treatment during the year.

### Dental Treatment.

The whole-time school dental surgeons periodically visit tuberculosis institutions and give dental treatment, mostly of a conservative character. Their work during 1931 is given in Table V.

TABLE V.

Name of Institution.	Number of Patients who received Treatment by—			
	Extraction.	Filling.	Scaling.	Total.
Newhills Sanatorium . . . .	7	7	1	15
Noranside Sanatorium . . . .	15	3	—	18
Linn Moor Convalescent Home . .	14	4	—	18
Thomas Walker Hospital, Fraserburgh	20	12	6	38
Peterhead Burgh Hospital . . . .	16	4	2	22
Total . . . .	72	30	9	111

### 2. Domiciliary Treatment.

Under the domiciliary scheme, 69 patients had the use of shelters, and special foods to the value of £369 0s. 2½d. were supplied to 55 patients. In addition, drugs were provided at a cost of £223 5s. 2d.

### 3. Dispensary Treatment.

There are 6 dispensaries operating at the following centres:—The Central Dispensary at 4, Albyn Place, Aberdeen, and branch dispensaries at Huntly, Inverurie, Peterhead, Fraserburgh and Bucksburn. At the Central Dispensary, patients are examined every Friday, and at the branch dispensaries clinics are conducted fortnightly. In the following Table are given the numbers who attended the individual clinics and also the total number of visits to these clinics:—

TABLE VI.

Dispensary.	Number of Patients.		Total Number of Visits.
1. Central . . . . .	167	...	173
2. Huntly . . . . .	41	...	133
3. Inverurie . . . . .	30	...	144
4. Peterhead . . . . .	42	...	155
5. Fraserburgh . . . . .	56	...	100
6. Bucksburn . . . . .	54	...	100
Total . . . . .	<u>330</u>	...	<u>805</u>

In 1931, 183 radiograms of the chest and 100 of other parts of the body were taken at Woodend and City Hospitals. The corresponding figures in 1930 were 144 chest radiograms and 151 of other parts of the body. Particulars relating to these radiograms are given in the subjoined Table.

TABLE VII.

Site of Disease.	Number of—		Total.
	Indoor Patients.	Outdoor Patients.	
Pulmonary . . .	78	105	183
Non-pulmonary . . .	82	18	100
Total . . .	160	123	283

In this connection it may be noted that practitioners are increasingly availing themselves of the facilities for physical and radiological examination at the Central Dispensary in the case of early and suspected cases of pulmonary tuberculosis.

## *Section VI.*

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### NURSING SERVICES.

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The County Nursing Association came into being in 1921. At that date there were 24 District Nursing Associations, each employing one nurse, and these Associations became affiliated to the newly formed County Nursing Association.

Now, there are 39 District Nursing Associations, each of which employs one nurse, with the exception of Stoneywood District Nursing Association, which employs two nurses. Thirty-four of these Associations are affiliated to the Queen's Institute of District Nursing, Edinburgh.

*Grants.*—The grants formerly made by Parish Councils to District Nursing Associations for nursing the sick poor were continued for last year and for the current year on the understanding that the whole position would be reviewed as from 16th May, 1932. The position in Fraserburgh, where the Town Council met one-half of the annual deficit of the Nursing Association, was also to be considered.

The annexed statement, "A," shows the District Nursing Associations with the areas served and the grants formerly made by the Parish Councils. It also shows, in the cases where accounts have been sent to the Council or to the County Nursing Association, the approximate financial position of the District Association, with notes as to conveyance and any special circumstances so far as known.

Statement "B" shows, under Public Assistance Areas, the total numbers of recipients of relief for the year 1930-31. Only a portion of these cases require nursing, and the Nursing Association Areas and the Public Assistance Areas are not co-terminous. It is desirable that, as in the past, the services of the district nurses should be available for nursing in their homes the sick for whom the Council are responsible, other than cases removed to hospitals. It is suggested for consideration that it be arranged with the District Nursing Associations that the district nurses undertake the regular visiting of boarded-out children.

*Areas not Served.*—Statement "A" shows the areas of the County for which there is at present no nursing service. The Council have a responsibility for statutory cases in these areas, *i.e.*, cases falling to be dealt with under School Health, Maternity and Child Welfare, Tuberculosis and Public Assistance. If it is impracticable to secure these services through a voluntary association by local effort, the Council will have to make their own arrangements, but such arrangements would not provide a nursing service for the community as a whole.

#### *Areas Partially Served.*

(a) *Landward Area.*—Some of the District Association Areas are so wide as to make it rather difficult for the nurse to give an efficient service, though this has been to a material extent eased in recent years by the provision of motor car transport, which makes it possible for the nurse not only to cover a wider area but also to give a more efficient service by conserving her energy and securing her comfort and health.

(b) *Peterhead*.—In two areas, however, Peterhead and Fraserburgh, the position is special. In Peterhead, the Hector Sick Nursing Institute undertakes general nursing, including some cases of sick poor. The only public health work which the nurse undertakes is tuberculosis and for that the Institute receives a grant of £20. The School Health, Maternity and Child Welfare cases and some of the sick poor are dealt with by the Council's whole-time health visitor. The service given by the health visitor is a very efficient one, and the only immediate question is the making of an arrangement for the regular visitation of boarded-out children if it is thought desirable that this should be done by a nurse or health visitor. The landward part of Peterhead Parish is not served.

(c) *Fraserburgh*.—The Fraserburgh Association is not affiliated to the County Association and it does not undertake the statutory duties. The nurse does a part-service in Maternity and Child Welfare, and the Town Council formerly paid one-half of the deficiency, which, for 1929-30, amounted to £117. The County Council have made a payment for the past two years of £40 per annum. There is only one nurse, who obviously cannot undertake the general nursing and the statutory services for even the burgh population, apart from surrounding landward areas. The whole position will require to be discussed with the Association and with the medical practitioners in the area.

#### *Grants for Public Health Services.*

Apart from Peterhead and Fraserburgh, every Association in the County undertakes the full services for its area and receives the full grant of £80 per annum, viz., School Health, £20; Maternity and Child Welfare, £40; and Tuberculosis, £20. The payment has always been a flat rate one, and it would be very difficult to alter this now as the finance of the Associations is in many cases built up on receipt of the grant, and some of the Associations that are in the strongest financial position and so best able to meet a reduction, having a large population to serve, are giving the best value measured by services rendered. In some cases the standard grant was given on condition that, on a vacancy occurring, the nurse to be appointed would be a fully trained general nurse, and this condition must be enforced to justify a continuation of the grant.

#### *Parish Council Grants.*

As will be seen from the statements, it is not possible to defend on the merits the great variation between areas. Some Parish Councils contributed nothing, whilst others gave as much as £30. In some cases a high grant has been given obviously for the purpose of securing nursing services for the civil population, and, where the voluntary effort is a systematic and adequate one, the basis of minimum subsidy rather than value of services can be defended. It can also be defended on the ground that it is in the most sparsely populated and difficult areas that the provision of a specially organised service for public work would be most costly to the Council. It is clear that the general population, as apart from special subscribers, have, in some areas, supported the local Association more systematically and effectively than in others. This factor should be considered in all cases, but, unfortunately, information is not available as regards some Associations and inquiry might be resented. If all the circumstances are considered, it does not, on the information available, appear to be possible to secure an equitable settlement if it is based on the amount of past payments.

*Action Suggested*.—It is suggested that the Council should decide that each Association giving an approved service within its area by a duly qualified nurse (and all present nurses would be regarded as so qualified) should receive a basic grant of £80 per annum and for that should undertake the Public Health and Public Assistance Services.



Any Association would be allowed to submit a claim for a supplementary grant on condition that it was prepared to show—

- (1) Financial need for further rate aid;
- (2) Hardship due to withdrawal of past Parish Council aid;
- (3) Systematic and adequate local effort; and
- (4) Cost of motor conveyance.

In cases accepted, supplementary grant would be allowed in three categories :—

- (a) Value of services rendered;
- (b) Value *plus* subsidy in difficult areas;
- (c) Subsidy to secure a service in very difficult areas;

(a) and (b) might be dealt with on scales. (c) Should be a matter for special decision in each case.

Minor adjustments or extensions of areas should be discussed where necessary with the Association concerned.

Action should be taken as regards the unserved areas. The first step should be to ascertain the possibility of encouraging the formation of local Associations.

#### *Report by Queen's Institute Inspector.*

The following is the report submitted by the Inspector of the Queen's Institute of District Nursing on the work performed by those District Nurses who are Jubilee Nurses :—

“During the months of September and October, 1931, the thirty-four Associations in Aberdeenshire affiliated to the Queen's Institute were visited and the work of the nurses inspected.

The nursing work keeps up to the high standard expected by the Institute, and the books all show that full advantage is being taken of the nurses' services.

More visits could be paid to the schools by some of the nurses. They are apt to think that their duties end after they have visited the “defects” list. The visits for Child Welfare have vastly improved in regularity since the provision of special files in which to keep the record cards. In some cases the cards are still not well kept, but in every case where they are kept in the method suggested the result is excellent and the nurse's work considerably lightened.

In Fraserburgh the Committee seem to be marking time until they are asked to undertake Public Health work. When this occurs they would require a second nurse, and might be able to take in a larger area.

It is to be hoped that many of the nurses will be able to attend the Refresher Course for Health Visitors if it takes place in spring. Combined work makes the nurse's life a busy one, and the Refresher Course not only keeps a nurse up-to-date but sends her back to her district with quickened interest.

The following developments have taken place :—The Cottage Hospital in Rhynie has been opened with the Queen's Nurse in charge, and the new Association of Mid-Deeside has been formed. Other nursing areas remain for future development to give a complete service to the County.

There are now fourteen Associations using motor cars for their work; three others still maintain motor cycles. In fifteen other areas the Committees prefer to make a hiring allowance. In Monquhitter, Cruden, Ellon, and possibly Ballater, one feels that both nurses and work would benefit largely by the provision of cars. The Associations of Kintore and Fyvie are the latest additions to the ranks of car owners—both heavy districts.

The local Committees are taking a lively interest in the betterment of the housing accommodation for their nurses, but there are still ten areas in which the rooms are without bathroom accommodation.”



*Progress during the Year.*—One District Nursing Association has been added during the year, namely, Mid-Deeside, comprising Lumphanan, Torphins, Kincardine O'Neil, Tornaveen and Glassel. Approximately, one-fourth of the County still remains to be covered by nurses, and this would mean an addition of at least 6 nurses.

If motor transport is provided, it follows that nurses can cover more extensive areas. This was exemplified during the year by the Ellon District Nursing Association, which received a car for their nurse, thus being able to undertake certain duties in the parish of Slains.

We do not yet have a comprehensive nursing scheme in the County, and this will never be the case until there is a complete network of nurses. On the other hand, Aberdeenshire is relatively well equipped as regards its nursing services and an extension of those can only take place gradually; but the need for a complete service will become more clamant with the general growth of the health services.

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STATEMENT A.  
FINANCIAL POSITION OF ASSOCIATION

Association	Parishes or Parts of Parishes Covered	Parishes formerly contributing	Year	Invested Capital	LOCAL INCOME		Car
					(a) Collections or Subscriptions	(b) Special	
<i>Deer District—</i>							
Maud and New Deer	New Deer . . . . . Old Deer (part)	New Deer, £5 . . . . .	1931	None	£86	£161	Yes

NOTE.—Formerly two Nurses—one at Old Deer. Balance and special collections include sum for car.

Tyrie and New Pitsligo	Tyrie . . . . .	Tyrie, £15					
Strichen . . . . .	Strichen . . . . . Lonmay (part)	Strichen, £30					

NOTE.—In Lonmay, only Kininmonth School (School Health Service).

Hector Sick Nursing Association	Peterhead Burgh . . . . .						
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NOTE.—There is a full-time Health Visitor in Peterhead. The Association gets a Public Health payment for Tuberculosis only—£20. Both the Association Nurse and the Health Visitor attend cases of sick poor.

Fraserburgh (not affiliated)	..... Fraserburgh, £30						
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NOTE.—The Town Council paid half cost of Nurse (£117 18s. 4d., year 1930-31). There is only one Nurse for the whole Burgh, and she does no Tuberculosis nor School Health work, and only part of Maternity and Child Welfare work. Grant given last two years, £40.

Parishes not served—Aberdour, Crimond, Longside, Lonmay (most), Old Deer (part), Peterhead (Landward), Pitsligo, Rathen, St. Fergus, Fraserburgh (Landward)							
--	--	--	--	--	--	--	--

*Ellon District—*

Cruden . . . . .	Cruden . . . . .	Cruden, £20 . . . . .	1929	About £200	£10	£50	£25
Ellon . . . . .	Ellon . . . . . Logie Buchan . . . . . Slains	Ellon, £10 10s. . . . . Logie Buchan, £2 2s.	1931	About £400	£4	£130	£47

NOTE.—Assists Slains Parish, recently added to area of Nurse.

## STATEMENT A—continued.

		STATEMENT A—continued.		FINANCIAL POSITION OF ASSOCIATION				Car
Association	Parishes or Parts of Parishes Covered	Parishes formerly contributing	Year	Capital Invested	Revenue Balance	LOCAL INCOME		
						(a) Collections or Subscriptions	(b) Special	
<i>Ellon District—continued.</i>								
Methlick . . . .	Methlick							
Tarves . . . .	Tarves							
Udny and Foveran . .	Udny and Foveran . .	Udny, £4 . . . . Foveran, £16	1931	£500	£7	£123	£23	Yes
Parishes not served—Nil								
<i>Garioch District—</i>								
Insch . . . .	Insch, Leslie, Premnay, Culsalmond, and Kennethmont	.....	1931	Nil	£10	£143	£12	Yes
Inverurie . . . .	Inverurie, Keith-hall .							
Meldrum . . . .	Meldrum, Bourtie, Daviot (part)	.....	1931	£300	£2	£113	£40	Yes
NOTE.—New car purchased out of accumulated balances.								
Central Garioch . .	Chapel of Garioch . . Oyne . . . . Rayne . . . . Daviot (part), Fyvie (part)	Chapel of Garioch, £5 . . Oyne, £3 3s. Rayne, £3	...	Nil	— £16	£117	£7	Yes
NOTE.—Car newly acquired.								
Kennay, Monymusk, and District	Kennay . . . . Monymusk . . . . Cluny (part) . . . . Chapel of Garioch (part)	Kennay, £10 . . . . Monymusk, £10 Cluny, £10	1930	£250	Dr. £1	£103	£25	Yes

Kintore, Fintray, and Kinellar	Kintore Parish (including Burgh)	Kintore, £2 2s.	1931	£150	Dr. £10	£103	£67	Yes
	Fintray . . . . .	Fintray, £2 2s						
	Kinellar . . . . .	Kinellar, —						

NOTE.—Special fund for car—Special Appeal; over £200 raised.

Parishes not covered—Nil

Parts of Parishes not covered—Nil

# *Deeside District—*

Aboyne . . . . .	All Aboyne and a radius of 5 miles, including Coull (part), Birse (part), Aboyne and Glentanar (part)	Aboyne £2 2s.	1931	£900	£14	£132	£31	Yes
Finzean . . . . .	Birse (part)	.....	1930	£200	£25	£51 15s.	£82	Pedal cycle
Mid Deeside . . . . .	Lumphanan, Kincardine O'Neil	New Association						
Cromar . . . . .	Logie-Coldstone and Tarland and N.W. part of Coull	.....	1931	£120	£5	£30	£50	...

53

NOTE.—This Association has had to realise capital.

Ballater . . . . .	Glenmuick (radius of 10 miles from Ballater)	.....	1931	£800	£20	£114	£26	Pedal cycle
Crathie . . . . .	Crathie (part), Braemar (part)	Crathie and Braemar, £5	1931	Nil	Dr. £1	£50	£40	Yes

NOTE.—Balance used to get car.

Braemar . . . . .	Braemar (part), Crathie (part)	Crathie and Braemar, £5	1929	£100	Nominal	£92	£70	Motor cycle
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Banchory . . . . . Kincardine O'Neil (Torphins area), Drumoak (part)

Parishes not served—Part of Parishes of Aboyne and Glentanar (Glentanar area), and Glenmuick (Dinnet area)

STATEMENT A—continued.

## FINANCIAL POSITION OF ASSOCIATION

Association	Parishes or Parts of Parishes Covered	Parishes formerly contributing	Year	Invested Capital	Revenue Balance	LOCAL INCOME		Car
						a) Collections or Subscriptions	(b) Special	
<i>Turriff District—</i>								
Fyvie . . . . .	Fyvie, &c. (5-mile radius from Fyvie Cottage Hospital)	Fyvie, Fees . . . . .	...	...	...	...	...	Yes
Turriff . . . . .	Turriff (including Burgh), also Forglen cases in Banffshire	.....	1930	£400 (Car Fund £113)	Dr. £44	£223	£31	
Monquhitter . . . . .	Monquhitter and King-Edward (part)	Monquhitter, £10 . . . King-Edward, £5	1931	£200	Dr. £6	£54	£40	Pedal cycle
Parishes not served—parts of King-Edward and Auchterless								
<i>Huntly District—</i>								
Huntly . . . . .	Huntly (Burgh)	Huntly, £10						
Glass and Cabrach . . . . .	Glass (and Cabrach in Banffshire)	Glass, £12						
Cairnie . . . . .	Cairnie and Huntly (part)	Cairnie £20 . . . . . Huntly, £3 3s.	1930	Nil	£10	£40	£84	Yes
Drumblade, Forgue, and Ythan wells	Drumblade, Forgue (including Ythan wells area, which is in Forgue and Auchterless Parishes)	Drumblade, £10 . . . Forgue, £10 Auchterless, £1 1s.	1929	Interest £36	Dr. Balance	£107	£15	Yes
NOTE.—Special appeal on Public Health, &c.—two large parishes and seven schools.								
Rhynie, Auchindoir, and Clatt	Rhynie . . . . . Auchindoir . . . . . Clatt . . . . .	Rhynie, £10 . . . . . Auchindoir, £10 Clatt, £5	1930	Nil	Dr. £71	£43	...	Motor cycle
Parishes not served—Gartly, Huntly (Landward) (part)								









Number of Recipients of Relief for Year from 16th May, 1930-15th May, 1931—continued.

Area	Parish	Ordinary		Able-bodied		Mental Defective		Lunatic		Stranger		Total	
		Poor	Deps.	Poor	Deps.	Poor	Deps.	Poor	Deps.	Poor	Deps.	Poor	Deps.
17.	Fintray . . . . .		6	—	—	—	—	—	—	2	1	7	7
	Dyce . . . . .	5	—	—	—	—	—	1	—	—	—	4	—
	Newhills (North) } . . . . .												
	Newhills (South) } . . . . .	24	9	2	7	2	—	2	—	3	—	33	16
	Kinellar . . . . .												
18.	Echt . . . . .	5	8	1	3	—	—	—	—	—	—	6	11
	Skene . . . . .	12	9	—	—	2	—	—	1	4	1	18	10
	Cults } . . . . .	16	7	1	1	—	—	—	4	4	4	21	12
	Peterculter } . . . . .	26	17	1	3	—	—	—	—	10	2	37	22
19.	Drumoak . . . . .	4	11	—	—	—	—	—	—	—	—	4	11
	Auchindoir . . . . .	11	—	—	—	—	—	—	3	3	3	14	3
	Kildrumny . . . . .	3	—	—	—	—	—	—	—	—	—	3	—
	Glenbuchat . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
	Strathdon . . . . .	3	—	—	—	1	—	—	—	1	—	5	—
20.	Towie . . . . .	1	4	—	—	—	—	—	—	2	8	3	12
	Alford . . . . .	3	4	—	—	—	—	—	—	1	—	4	4
	Tullynessle . . . . .	4	1	1	4	—	—	—	—	—	—	5	5
	Leochel-Cushnie . . . . .	13	1	—	—	—	—	1	—	3	—	17	1
	Tough . . . . .	3	2	—	—	—	—	—	—	—	—	3	2
	Keig . . . . .	4	2	2	8	—	—	—	—	1	—	7	10
21.	Clatt . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
	Kennethmont . . . . .	10	2	—	—	1	—	—	—	2	1	13	3
	Gartly . . . . .	3	—	—	—	—	—	1	—	4	2	8	2
	Rhynie . . . . .	19	10	2	6	—	—	—	—	3	—	24	16
22.	Cairnie . . . . .	8	6	—	—	—	—	—	—	4	7	12	13
	Drumblade . . . . .	4	—	—	—	—	—	—	—	—	—	4	—
	Forgue . . . . .	10	15	—	—	1	—	—	—	6	—	17	15
	Glass . . . . .	6	4	1	4	—	—	—	—	—	—	7	8
	Huntly . . . . .	58	24	11	26	2	—	—	—	21	15	92	65

## *Section VII.*

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### THE TREATMENT OF VENEREAL DISEASES.

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The arrangements for the treatment of venereal diseases have been described in detail in previous Annual Reports. The Venereal Diseases Scheme is a combined one. It came into operation in 1919 and then embraced the City of Aberdeen and the North-Eastern Counties. In 1922 the Counties of Zetland and Orkney became contributors to this Joint Scheme.

There are two treatment centres, one at the Aberdeen Royal Infirmary and the other at the Aberdeen City Hospital. There are no sub-centres in the County of Aberdeen.

#### *Number of New Cases.*

The number of new cases attending for treatment during each year since 1925 was as follows :—

1925	.	.	.	.	.	.	.	94 new cases.
1926	.	.	.	.	.	.	.	96 „
1927	.	.	.	.	.	.	.	98 „
1928	.	.	.	.	.	.	.	108 „
1929	.	.	.	.	.	.	.	131 „
1930	.	.	.	.	.	.	.	124 „
1931	.	.	.	.	.	.	.	172 „

Of the 172 new cases treated in 1931, 47 suffered from syphilis, 71 from gonorrhœa and 4 from mixed infections; 50 persons attended for conditions other than venereal.

#### *Number of New Cases Treated Institutionally.*

Thirty-four cases were admitted to the special wards of the Aberdeen Royal Infirmary. Of these, 22 were males and 12 females. Fourteen suffered from syphilis, 19 from gonorrhœa, and 1 from conditions other than venereal.

The number of new cases treated institutionally since 1925 were as under :—

1925	.	.	.	.	.	.	.	16 cases.
1926	.	.	.	.	.	.	.	15 „
1927	.	.	.	.	.	.	.	20 „
1928	.	.	.	.	.	.	.	31 „
1929	.	.	.	.	.	.	.	25 „
1930	.	.	.	.	.	.	.	22 „
1931	.	.	.	.	.	.	.	34 „

#### *Number of Attendances of Outdoor Cases at Treatment Centres.*

In 1931 the total number of attendances at the Treatment Centres was 3,803, as compared with 3,930 in 1930, 3,227 in 1929, 3,061 in 1928, 3,301 in 1927, and 2,231 in 1926.



*Supply of Special Drugs for Syphilis.*

In 1931, 313 doses of anti-syphilitic drugs were supplied to 4 institutions, and 117 doses to 13 practitioners. The figures relating to the last 7 years are shown hereafter :—

YEAR.	INSTITUTIONS.		PRIVATE PRACTITIONERS.	
	Number of Institutions.	Number of Doses.	Number of Practitioners.	Number of Doses.
1925 . . . . .	—	—	10	46
1926 . . . . .	—	—	36	288
1927 . . . . .	—	—	13	92
1928 . . . . .	3	62	21	120
1929 . . . . .	3	48	24	161
1930 . . . . .	—	—	14	136
1931 . . . . .	4	313	13	117

*Laboratory Examinations.*

The total number of laboratory examinations performed since 1925 in connection with the Venereal Diseases Scheme was, so far as concerned the County, as follows :—

1925 . . . . .	850 examinations.
1926 . . . . .	1,014 „
1927 . . . . .	1,130 „
1928 . . . . .	1,207 „
1929 . . . . .	1,161 „
1930 . . . . .	1,361 „
1931 . . . . .	1,347 „

In the year under review, the Wassermann Reaction was performed in 803 cases, with positive results in 288 cases. The exudate was examined in 7 cases, and of these 1 was positive. Examination for the gonococcus was made in 537 instances, and in 85 the results were positive.

Of the 1,347 specimens examined, 39 were sent by general practitioners.

*“Incomplete Cases.”*

A proportion of cases always fails to complete treatment, and, unfortunately, owing to lack of legislative control, patients may avail themselves of treatment but may discontinue it at will. The greatest defect in all Venereal Diseases Schemes is that there is no power to enforce continuity of treatment until the patients are free from infection or are cured.

In 1931, 2 patients failed to complete treatment—1 male and 1 female suffering from syphilis. The numbers who failed to complete treatment in the previous six years were :—1930, 9; 1929, 13; 1928, 7; 1927, 14; 1926, 20; 1925, 24.

## Section VIII.

### BACTERIOLOGICAL SERVICES.

**Report on Bacteriological Work performed in the County Bacteriological Laboratory during the year ending 31st December, 1931, by Dr. J. F. Tocher, Director of the County Bacteriological Laboratory.**

I beg to report on the work performed in the County Bacteriological Laboratory, Crown Mansions, 41½, Union Street, Aberdeen, for the year ending 31st December, 1931.

During the year 3,711 specimens were received for examination, 2,292 of which were from Public Health sources, while 419 specimens were examined under the Tuberculosis Scheme for the County.

#### *Examinations for B. Diphtheriæ.*

Two thousand five hundred and sixty-four swabs were examined for *B. diphtheriæ* during the year, of which 1,715 were received from hospitals in the County, 482 from general practitioners, and 367 from County Medical Officers. From the hospital swabs 206 positive throats were obtained, 36 positive nose swabs and 7 positive ear swabs. Sixty-two positive throat swabs, 4 positive nose swabs and 1 positive ear swab were found in the 482 swabs examined for general practitioners, while 10 positive throat swabs and 9 positive nose swabs were found in the swabs of contacts taken by the Medical Officers.

The following table (Table I) shows the origin and results obtained from the swabs examined:—

TABLE I.

	Swabs.		Throat.	Nose.	Ear.	Total.
	+	—	+	+	+	
Peterhead Hospital . .	100	636	75	18	7	736
Fraserburgh do. . .	32	266	25	7	—	298
Strichen do. . .	44	215	44	—	—	259
Inverurie do. . .	19	96	13	6	—	115
Summerfield do. . .	28	103	27	1	—	131
Hantly do. . .	3	55	2	1	—	58
Turriff do. . .	4	14	2	2	—	18
Aboyne do. . .	—	10	—	—	—	10
Ellon do. . .	19	71	18	1	—	90
General Practitioners .	67	415	62	4	1	482
Medical Officers . .	19	348	10	9	—	367
Totals	335	2,229	278	49	8	2,564

#### *Examinations for Organisms of the "Enterica" Group.*

Two hundred and forty specimens were received for examination during the year. One hundred and eighteen fæces, 73 urines, and 38 bloods were examined for *B. typhosus* and allied organisms and also a proprietary preparation which was supposed to be the cause of enteritis in two patients. Forty-four specimens of fæces and 5 urines were examined for practitioners, of which 4 fæces gave positive results consisting of 1 *B. Flexner* infection, 1 *Sonne* infection and in 2 cases *B. enteritidis* Gærtner was present. All the urines gave negative results. Thirty-one bloods were examined for the Widal reaction, of which 3 gave positive reactions with *B. typhosus*, 8 with *B. paratyphosus B.* and 2 with *B. enteritidis* Gærtner.

Two blood cultures were negative, while the proprietary article suspected of causing the Gærtner infection was found to contain that organism.

From hospitals in the County 84 fæces were examined, 11 of which were positive for *B. paratyphosus* B. and 1 for *B. Sonne*. Sixty-eight urines gave 4 positives for *B. paratyphosus* B. and 5 bloods gave positive Widal reactions to the same organism.

Table II shows the results of the examinations performed for organisms of the enteric group.

TABLE II.

	Fæces.		Urines.		Widals.		Blood Cultures.		Proprietary Article.		Total.
	+	-	+	-	+	-	+	-	+	-	
Practitioners .	4	40	—	5	13	18	—	2	1	—	83
Peterhead Hospital	4	15	1	18	5	—	—	—	—	—	43
Strichen do.	7	25	3	26	—	—	—	—	—	—	61
Fraserburgh do.	—	15	—	14	—	—	—	—	—	—	29
Inverurie do.	1	8	—	6	—	—	—	—	—	—	15
Huntly do.	—	9	—	—	—	—	—	—	—	—	9
Totals	16	112	4	69	18	18	—	2	1	—	240

#### *General Examinations.*

*Urines.*—118 urines were examined, of which 62 showed *B. coli* present. Eleven were positive for albumen, 1 for glucose, while 8 urines showed the presence of calcium oxalate.

*Bloods.*—15 specimens of fæces were examined for occult blood, from which 6 positive results were obtained. Two vomits gave positive blood tests. Ninety-six blood films were examined, 56 from cases of chlorosis and secondary anæmia and 40 from cases of pernicious anæmia. Twenty-five blood counts were performed and 3 bloods were chemically analysed for their urea content, and the blood glucose was estimated in a sample.

*Pus.*—62 specimens of pus showed the causal organism to be streptococci in 8 specimens, staphylococci in 8 specimens, while 17 positives for gonococci were obtained from 46 specimens examined for that organism. Nineteen auto-genous vaccines were prepared from specimens of pus and other material.

*Miscellaneous.*—3 specimens of cerebro-spinal fluid were examined, in one case the pneumococcus was the causal organism, but two specimens gave negative results. Two samples of ascitic fluid gave negative results, while the causal organism of a pleural effusion was a streptococcus. Two specimens of *Tænia saginata* were received for examination, 1 specimen of ringworm and 4 tumours, while a chemical examination was performed on a samples of fæces.

*Milks.*—74 samples of milk were examined for *B. tuberculosis*, 16 of which gave positive results. Twenty-two milk counts were made and all the samples of milk gave highly satisfactory counts.

*Anthrax.*—10 slides and 8 swabs were examined for *B. anthracis*, of which 9 slides were positive and 5 swabs gave positive cultural results.

*Waters.*—19 samples of water were examined bacteriologically during the year. Fourteen samples were from the Peterhead water supply. Twelve of the samples were of a good bacteriological standard, but 2 were of inferior quality. The remaining samples were of good or fair quality. A number of samples from Peterhead were examined for the nature of the deposit, and, in several samples, *Peridinium* and *Glenodinium*—two protozoa capable of giving rise to a fishy odour in the water supply—were found to be present. The later samples of the water showed evidence that the numbers of these protozoa were diminishing.

The following table (Table III) shows the number of general examinations performed during 1931 :—

TABLE III.

	B. Coli.		Albumen.		Glucose.		Oxalates.		Total.		
	+	—	+	—	+	—	+	—			
Urines . . .	62	22	11	3	1	4	8	7	118		
	Fæces.		Vomit.		Anæmia.		Pernicious.		Counts.	Urea.	Glucose.
	+	—	+	—							
Blood . . .	6	9	2	—	56	40	25	3	1	142	
	Streptococci.		Staphylococci.		Gonococci.						
					+	—					
Pus . . . . .	8		8		17	—	Vaccines		19	81	
	Tuberculosis.		Counts.				Slides.		Smears.		
	+	—	+	—			+	—	+	—	
Milks . . . . .	16	58	22		Anthrax		9	1	5	5	114
Miscellaneous .	Cerebro-Spinal Fluid, 3; Ascitis, 2; Ringworm, 1; T. Saginata, 2; Tumours, 4; Fæces Chemical, 1; Pleural Effusion, 1; Waters, 19 . . . . .										33
											<hr/> 488
Totals											

*Examinations under the Tuberculosis Scheme for the County.*

Four hundred and nineteen specimens were received for examination during 1931. Three hundred and forty-two sputa were examined from various sources, of which 82 gave positive results.

Six fæces were negative for B. tuberculosis, but 4 urines from the 29 urines examined gave positive results.

Two ascitic fluids and 2 cerebro-spinal fluids were negative as were 3 specimens of pus and a pleural effusion.

Thirty-four autogenous vaccines were prepared from specimens of sputum during the year.

The following table (Table IV) shows the nature and source of the examinations performed :—

TABLE IV.

	Sputa.			Other Examinations.	
	+	—		+	—
Newhills Sanatorium .	40	40	Fæces . . . . .	—	6
Peterhead Hospital .	13	24	Urines . . . . .	4	25
Thomas Walker do. .	—	2	Ascitis . . . . .	—	2
Huntly do. .	—	8	Cerebro-Spinal Fluid .	—	2
Ellon do. .	—	1	Pleural Effusion . . .	—	1
Summerfield do. .	—	1	Pus . . . . .	—	3
County Medical Officers	3	6			
General Practitioners .	26	178	Vaccines . . . . .	—	34
Totals	82	260	Totals	4	73

The following table (Table V) shows the total number of specimens examined during the year :—

TABLE V.

	+	—	Total.
Swabs—B. Diphtheriæ . . .	335	2,229	2,564
Fæces, Blood, &c.—B. Typhosus	39	201	240
General Examinations . . .	—	488	488
Sputa for B. Tuberculosis . .	82	260	342
Miscellaneous . . . . .	—	77	77
Totals	456	3,255	3,711



*Vaccines and Sera.*

During the year the following vaccines and sera were issued to practitioners and hospitals :—

Diphtheria Anti-toxin.			Diphtheria Anti-toxin—Concentrated.		
1,000 units	...	12 vials	2,000 units	...	30 vials
			3,000	„	49 „
			4,000	„	226 „
			6,000	„	70 „
			8,000	„	15 „
Tetanus Anti-toxin . . . . .					80 vials
Anti-Streptococcal Sera—					
Scarlet Fever . . . . .					10 „
Polyvalent . . . . .					18 „
Puerperal . . . . .					6 „
Erysipelas . . . . .					3 „
Sclavo's Serum . . . . .					4 „
Vaccines—T.A.B. . . . .					16 doses

Aberdeen, 15th January, 1932.



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Mastitis	.	.	.	.	.	.	.	.	313
Atrophy	.	.	.	.	.	.	.	.	204
Eruptions (including cowpox)				.	.	.	.	.	92
Suppurating udders and teats				.	.	.	.	.	27
Retained placenta		.	.	.	.	.	.	.	16
Total					.	.	.	.	<hr/> 652 <hr/>

The affected cows were removed temporarily or permanently as the case required.

#### **Tuberculosis in Dairy Cows.**

During the year 96 dairy cows on registered dairy farms, which were found to be tuberculous within the meaning of the Tuberculosis Order, were dealt with in terms of that Order.

The forms of tuberculosis found were as follows :—

Tuberculosis of the udder . . . . .	25
Tuberculosis with chronic cough . . . . .	34
Tuberculous emaciation, . . . . .	37
	<hr/>
Total . . . . .	96
	<hr/>

#### **Milk Samples.**

During the year 69 samples of milk were taken from cows suspected to be suffering from tuberculous mastitis and examined microscopically and biologically. Fourteen samples were found positive and the cows slaughtered. All fourteen cases were diagnosed by microscope and found positive on *post-mortem* examination.

#### **Inspection of Cowsheds.**

The sanitary condition of the registered dairy premises and the methods of handling milk continue to show improvement, though there are still a number of dairymen slow to adopt what they consider to be unnecessary details of procedure.

#### **Alteration to Cowsheds.**

Most of the byres which were producing milk before the present Act came into operation have now been altered to comply with the bye-laws.

#### **Certified Dairy Herds.**

Owner and Premises.	Average Number of Herd.	Gallons produced per annum.
Major James Keith, Bonnyton and Cairnbrogie	Bonnyton, 47 cows Cairnbrogie, 80 cows	47,000 72,000
Duthie Experimental Stock Farm	60 cows	54,000

Summary of Visits of Inspection in the Districts and Burghs.

Districts and Burghs.	Number of Visits.	Cows in Milk.	Cows (dry).	Total No. of Cows.	Tuberculosis Udder.	Mammitis.	Atrophy.	Eruptions.	Suppurating Conditions.	T. B. Chronic Cough.	T. B. Emaciation.	Retained Placenta.
Aberdeen District .	321	4,482	650	5,132	12	91	65	23	9	7	16	4
Deer " .	156	1,718	319	2,037	3	44	19	13	6	6	7	—
Ellon " .	135	2,767	388	3,155	4	72	51	19	—	5	4	4
Garioch " .	91	1,696	235	1,931	2	51	35	24	—	4	2	4
Deeside " .	41	503	84	587	1	8	5	—	4	2	2	—
Turriff " .	80	1,048	190	1,238	1	25	19	3	1	3	3	2
Alford " .	14	154	39	193	—	3	—	5	—	3	2	—
Huntly " .	33	446	64	510	—	13	8	4	1	3	1	1
Fraserburgh Burgh	35	253	36	289	2	1	—	1	2	—	—	—
Peterhead " .	9	135	32	167	—	2	—	—	—	—	—	—
Rosehearty " .	36	122	27	149	—	—	—	—	2	—	—	—
Huntly " .	7	43	13	56	—	1	1	—	1	—	—	—
Turriff " .	27	111	24	135	—	—	1	—	—	—	—	—
Oldmeldrum " .	3	46	6	52	—	1	—	—	—	—	—	—
Kintore " .	3	44	6	50	—	1	—	—	1	—	—	—
Total .	991	13,568	2,116	15,681	25	313	204	92	27	34	37	16

## Section X.

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### REPORTS BY SANITARY INSPECTORS.

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#### I.—DEER DISTRICT.

*Drainage.*—The drainage works within the Special Districts are being well maintained and kept in good order. In the District, generally, many improvements have taken place in house drainage. The work of laying the new drainage system in the Village of New Pitsligo is well advanced, and will be a great improvement on the sanitary condition of the village once all the connections are made. The septic tank and filter beds will prevent pollution of the water-courses near the village.

Engineers are preparing a scheme for the drainage of the Village of St. Combs. The village is greatly in need of this, as the old drains are getting choked up. The committee of villagers who looked after the drains have now ceased to act, and will do nothing to keep the drains clear; the new sewers cannot come too soon. I wish to call special attention to the Villages of Fetterangus, New Deer, and Mintlaw; the drainage of each requires early attention.

The drainage of the Burgh of Rosehearty gives every satisfaction.

*Water Supplies.*—The works within the special water areas are being well maintained. The introduction of a new water supply into the Village of Stuartfield supplies a long felt want. The Village of Longside has had an augmented supply introduced upon its being formed into a Special Water District. The work mentioned in my last report regarding the Village of Boddam has been completed, and the village had an ample supply at the end of the year. New water supplies have been introduced into many houses during the year.

The water supply of the Burgh of Rosehearty is giving every satisfaction.

*Scavenging.*—The scavenging in the Special Areas, and the Burgh of Rosehearty, has been carried out as formerly and is giving satisfaction. Throughout the District, generally, scavenging is being fairly well attended to. My remarks regarding the community ash-pits in the Village of Boddam in my report last year apply with equal effect this year. The District Council had plans and estimates prepared for the removal of these abominations, but so far nothing has been done.

*Nuisances.*—All nuisances which came under my notice were immediately dealt with, and the service of the intimation has generally had the desired effect. Closing orders were served on three houses.

*Inspections.*—General inspections were carried out during the year, and special inspections were carried out regarding housing water supplies in the Villages of Longside, Stuartfield, and Boddam. The Manure and Fish Oil Works at Broadsea were visited and found as clean as works of this nature can be kept. No complaints were made about the place during the year.

*Schools.*—All the schools in the District were visited and mostly found in good order. A report upon defects found was sent to the County Medical Officer.

*Workshops.*—The workshops, so far as visited, were found in good order.

*Slaughter-houses.*—The slaughter-houses were regularly visited, and all found in a clean condition. In all, 437 visits were made, 531 animals inspected, and 3,132 lbs. of diseased meat seized and destroyed with the owners' consent.



*Dairies.*—The dairies in the Burgh of Rosehearty were all visited and all found in good condition; the milk-houses and persons conducting the business were all found clean.

*Housing.*—In the Burgh of Rosehearty a clearance area has been marked out, all the properties to clear out have been bought, and building has been commenced to house the dispossessed tenants.

In the District, the Rural Workers Act is still being greatly taken advantage of; 152 applications were dealt with, and of these, 141 applications have been granted.

*Churchyards.*—The churchyards visited were all found in good order. The churchyard at St. Combs has now been closed, and no burials can take place there but under my supervision. A new burial ground has been provided near the Village of Cairnbulg.

*Common Lodging-houses.*—There are none within the District or the Burgh of Rosehearty.

W. J. SIMPSON, *Sanitary Inspector.*

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## II.—ELLON DISTRICT.

*Water Supplies.*—Several of the village water supplies came under review during the year.

*PORT-ERROLL.*—The inflow at the two reservoirs was well maintained during the year, but several complaints of lack of pressure were lodged by tenants living in two-storey houses at Low Town.

A scheme was prepared to substitute a 4-inch main in the lower village for the present 2½-inch pipe, and utilise the high reservoir as the main supply, but in view of reduced grants and the present economic state of the country, it was decided meantime to drop the scheme.

I believe the pressure could be improved, if, even with the present pipes, the whole of the water was taken from the high reservoir.

*COLLIESTON.*—Only on one occasion did the supply fail during the summer. Investigation proved that a certain amount of wastage was going on overnight in connection with sanitary conveniences recently installed.

This supply, however, is being severely taxed during the summer months, when the population is nearly doubled, and now that a general introduction of water-closets is going on since the new Scavenging operations came into force, a higher reservoir with increased storage will be required.

The question of improving this supply is meantime under the consideration of the County Engineer.

An extension of the main at Low Town was completed at a cost of £22 10s.

*NEWBURGH.*—The proposed improvements to this supply were commenced before the end of the year. When the new mains in the village and from the reservoir are completed, there should be an ample supply of water for all domestic purposes.

Improvements are also being carried out at Knockhall reservoir, a small supply which comes into operation when the pressure in the mains from Savock is reduced. The filtering material has been renewed, and repairs to the cement storage tank and filter covers are being carried out.

*HATTON.*—The augmentation of this supply was completed during the year, but several complaints were lodged regarding lack of pressure.

The Engineers advised that the whole of the water to the village should pass through the new cistern, and since then quantity and pressure have improved considerably.



It would seem, however, that entire satisfaction will not be assured until the whole of the village mains, as well as a portion of the pipe line from the reservoir, are renewed.

This matter is at present under consideration.

TARVES.—No complaints were received during the year regarding this supply, but as has been mentioned in previous reports, the present reservoir is at too low a level to give satisfaction, or meet any increased demand.

METHLICK and PITMEDDEN, UDNY, would benefit by the formation of Special Water Districts.

Outwith the Special Districts several supplies required attention.

Nine samples were submitted to the County Analyst. Four were reported good, two fair, and three as unfit for domestic use. The three reported as unfit were taken from the same source, a newly dug well.

A small improvement is to be carried out to the Methlick County Houses supply, which becomes dirty after heavy rains.

Ten water supplies were improved during the year.

*Drainage.*—PORT-ERROLL, TARVES, COLLIESTON, and NEWBURGH systems continue to give satisfaction. At the beginning of the year, 75 yards of 8-inch sewer had to be lifted and relaid in another direction at Collieston. Two new brick manholes were also provided. The heavy rains had caused the clay bank to slip. A defect at the sewer was also repaired at Low Town.

METHLICK, PITMEDDEN, and HATTON, as mentioned in previous reports, are badly in need of formation into Special Districts.

Thirty-four new or improved drainage systems were examined and smoke-tested at individual houses. Two chemical closets were introduced at Collieston.

With regard to sanitary conveniences, particulars are given in the following table :—

Name of Special District.	(1) W.C.'s.		(2) Without water and sink in house.	(3) (a) Dry closets.	(b) Privy middens.	(c) Ashpits.
	No. of w.c.'s	No of tenants per w.c.				
Port-Erroll, .	88	1	62	—	—	—
	10	2	—	—	—	—
	7	3	—	—	—	—
	6	4	—	—	—	—
Collieston, .	41	1	33	—	—	—
Newburgh, .	48	1	41	8	—	3
	5	3	—	—	—	—
Tarves, .	28	1	15	14	2	31
	5	2	—	—	—	—

*Scavenging.*—The Scavenging Districts of Newburgh and Port-Erroll continue to give satisfaction. New measures, however, were drafted out for the scavengers, so that the dumps would be maintained in a more satisfactory manner, and these are being given effect to.

The two large ashpits at Collieston were closed in June, and a bi-weekly collection of refuse instituted. The disposal of pail privy contents proved a problem for many of the inhabitants, but the introduction of sanitary conveniences is helping to modernise the cleansing of this village.

During the summer months the collection of refuse should be made three times per week.

HATTON has been formed into a Scavenging District, and cleansing commenced in December. A quarry dump has been secured near the village, and the material is to be laid down in 5-ft. layers according to the requirements of the Department of Health. The dump is also to be enclosed with a high wire-netting fence.

The disposal of pail privy material is also presenting a problem here, and as Hatton is not a Special Drainage District, a remedy is not so easily found.

Householders have been asked to bury the pail privy contents in their gardens, but, as the scavenging arrangements are only recently commenced, nothing definite can be stated as to the success of the scheme.

**TARVES.**—A suggestion has been made that this village should be formed into a Scavenging District. The water supply would need to be improved to compensate for increased demand for sanitary conveniences before such a scheme could be urged.

**Nuisances.**—Sixty-eight nuisances were reported or discovered during the year and the necessary steps taken for their removal.

*An Account of General Inspections and Special Inspections or Enquiries, including the Supervision of Slaughter-houses and Offensive Trades and Sanitary Condition of Schools and Workshops.*

**Special Inspections.**—Three hundred and thirty-two special inspections were made during the year. These include visits of inquiry in connection with infectious disease, dirty houses, examination of work under the Housing (Rural Workers) Act, 1926, supervision of water, drainage, and scavenging in the Special Districts, and the repair and maintenance of the County Council houses in the District.

**Infectious Diseases.**—The following cases were notified during the year:—Scarlet fever, 27; diphtheria, 9; paratyphoid, 1; dysentery, 4; undulant fever, 1; pneumonia, 9; tuberculosis, 4; erysipelas, 1—total, 56. Removed to hospital, 36; premises disinfected, 43; bedding, &c., disinfected, 60.

**Slaughter-houses.**—Regular inspections were made of the eight slaughter-houses in the District. Three were practically disused during the year. The premises were kept in fair order.

**Unsound Food.**—Three hundred and twenty-five inspections were made; 875 cattle, 18 sheep, and 12 pigs were examined.

A total of 4,726 lbs. of meat, including offal, was detained and condemned by the Meat Inspector. In addition, 4 cattle and 3 pigs were examined as emergency slaughters at farms.

The following amounts of tinned foods were surrendered and destroyed with the owners' consent:—meat, 41 lbs.; fruits, 81½ lbs.

**Schools.**—The twenty-six schools in the District were each visited twice during the year. Several defects were brought to the notice of the Education Committee. The general cleanliness of the school premises was found satisfactory, but several playgrounds are badly drained, damp, and muddy, during wet weather. The introduction of treated surfaces should be considered. Improved water supplies have been completed at Cultercullen and Artrochie. A new supply is under consideration for Auchiries School.

Six small schools have still pail privy conveniences. With improved water supplies this number should be gradually reduced.

**Workshops.**—Eighty inspections were made and ten defects found. These were rectified in due course.

**Common Lodging-houses.**—There are none in this District.

**Dairies.**—Two new licences were granted during the year, three transferred to new tenants, and one person gave up dairying. Three byres are in course of reconstruction for dairy purposes. There are at present 213 registered dairy premises in the District.

Small improvements continue to be made, and six new or renovated milk-houses have been provided.

With one or two exceptions, general cleanliness is being well maintained.

*Housing.*—Twenty-three applications, embracing 33 houses, were made under the Housing (Rural Workers) Act, 1926. Twenty-one applications were approved and two are pending.

Work on 26 houses was completed by the end of the year.

One application is held up meantime owing to an unsatisfactory water analysis.

One application was approved under the 1924 Act in respect of a new 3-roomed wooden bungalow.

Two new houses were built during the year without State assistance.

The terms under the Housing (Rural Workers) Act, 1926, are still being taken advantage of, and now that the Act has been continued for another five years, a steady improvement in the housing conditions of farm servants must be the ultimate result.

One hundred and forty-six houses were inspected, and 10 defects remedied, under the Public Health (Scotland) Act, 1897.

*Burial Grounds.*—Extensions are being carried out at Cruden and Tarves. A proposed extension is also being considered at Logie-Buchan Churchyard.

JOHN PAGE, A.R.San.I., *Sanitary Inspector.*

### III.—GARIOCH AND HUNTLY DISTRICTS AND THE BURGHS OF OLDMELDRUM AND KINTORE.

1. *Water Supplies.*—The Special Water Supply Districts are Inch and Rothney, Kemnay, Monymusk, Rhynie, Gartly Station, and Ruthven, and the Burghs of Oldmeldrum and Kintore.

INSCH AND ROTHNEY.—Wayleaves were obtained for an augmentation of the water supply from a new source at Lenchie, on the southern border of the Foudland Hills, and construction of works, with assistance of an Unemployment Relief Grant, was commenced towards the end of the year. The new supply is collected from underground springs, which, on 30th August, 1930, were yielding 30,000 gallons per day of 24 hours. The scheme is in charge of Messrs. Jenkins & Marr, Civil Engineers, Aberdeen, and the new pipe lines and reservoir are being constructed by Messrs. James Laing & Sons, Contractors, Inverurie. It may be of interest to note that the same firm of Engineers and the same firm of Contractors designed and executed the original works of water supply for Inch and Rothney about 40 years ago.

RHYNIE.—In 1929, application was made to the Unemployment Grants Committee for assistance with the construction of improvement works, which were estimated to cost £1,250. This application was repeated in the year 1930 without result. In my annual reports for the past seven years, I referred to the amount of care and attention that the works required in order to maintain a constant supply in all parts of the Special District, and I expressed the opinion that the 2½-in. diameter main pipe did not deliver sufficient water at times of maximum demand. During the year, the supply of water was intermittent at houses situated in the higher parts of the Special District. I now suggest that the construction of a sufficient aqueduct is urgent.



KEMNAY, MONYMUSK, AND GARTLY STATION.—The water supplies in those Special Districts were sufficient to meet the demands made upon them.

RUTHVEN.—The County Council agreed to sanction an expenditure of £191 16s. 6d. in the provision of new waterworks for this hamlet of seven houses, and were prepared, after the total cost had been ascertained, to grant such assistance as would limit the rate to be levied in the Special District to 3s. in the £. A proposal having been made to erect additional houses in Ruthven, under the Housing (Rural Authorities) Act, 1931, I suggested that the proposed new works of water supply should be made sufficient for such houses, and the Huntly District Council again have the matter under consideration.

OLDMELDRUM.—A shortage of water in April, 1931, was found to be due to a leakage in one of the main distributing pipes and to part of the supply in the collecting area having altered its course. Repairs were immediately executed by the Town Council and there was a sufficient supply to meet the demand during the remainder of the year.

KINTORE.—A new house having been built on a new road within the Burgh, the Town Council extended the water main thereto, consisting of 76 yards of 2-in. diameter cast-iron pipes, with two valves and one hydrant, which cost £24.

OUTWITH SPECIAL DISTRICTS.—New or improved supplies of water were provided at 23 houses in the rural areas.

2. *Drainage*.—The public works of drainage in the five Special Districts and in the two Burghs were maintained in a very satisfactory condition. At Insh and Rothney, and Oldmeldrum, there are sewage purification works in proper working order. At Kemnay Special District, an extension of 80 lineal yards of an 8-in. diameter sewer, with manhole and flushing valve, was laid down by direct labour at a cost of £45. There are several blocks of houses in Kemnay Special District which cannot be drained to the public sewers, and the construction of septic tanks is required along with the provision of modern sanitary conveniences thereat. Of six of those tanks, which were constructed within recent years, three take the drainages from individual houses, one from two houses, one from three houses, and one from seven houses. In the latter case only has the Local Authority become responsible for maintenance of the tank and sewer, which were constructed to our satisfaction by the owners of the houses. The Local Authority contributed a sum of £20 towards an extension of 50 yards of a 6-in. diameter fireclay sewer, with a manhole and a reinforced concrete flushing tank, situated behind the building feus in Essie Road, Rhynie Special District.

New or improved private drainage systems were constructed during the year as follows :—Garioch District, 18; Huntly District, 12; Oldmeldrum Burgh, 3; and Kintore Burgh, 3.

3. *Scavenging*.—The Special District of Insh and Rothney and the Burgh of Kintore had a tri-weekly collection of house refuse, which gave every satisfaction. A bi-weekly collection was commenced in Rhynie during the month of June, 1931, for which a contract was let at £21 per annum. The Town Council of the Burgh of Oldmeldrum had under consideration the provision of a new refuse dépôt and the adoption of the ashbin system of collecting and removing household refuse, which are expected to come into operation during 1932. Those communities are to be congratulated upon the abolition of the fixed ashpit system of scavenging. Along with the speedy and hygienic removal of waste matters from the immediate vicinity of dwellings, there is a noticeable improvement in the work of street cleansing. A new public convenience was erected near the Square in the Burgh of Oldmeldrum.

Particulars as to (1) the number of common water-closets in use, shewing separately the number serving 2, 3, 4, and 5 or more tenants respectively; (2) the number of houses without water supply and sink inside the house; and (3) the number of (a) dry closets, (b) privy middens, and (c) ashpits, shewing for each separately the number serving 2, 3, 4, and 5 or more tenants.

Special Districts and Burghs.	Insch and Rothney.	Kemnay.	Mony-musk.	Rhynie.	Gartly.	Old-meldrum.	Kintore
1. Water-closets used in common by 2 tenants,	25	27	—	6	2	15	22
"                    3          "	15	5	—	5	—	9	8
"                    4          "	6	6	—	3	—	1	9
"                    5 or more "	5	1	—	1	—	—	—
2. Houses without water and sink, . . .	98	150	27	54	3	129	68
3. (a) Dry closets used by 2 tenants, . .	—	4	—	4	—	8	—
"                    3          "	—	1	—	3	—	1	—
"                    4          "	—	—	—	1	—	—	—
(b) Privy middens used by 2 tenants, .	—	4	—	—	—	12	1
"                    3          "	—	6	—	—	—	3	2
"                    4          "	—	3	—	—	—	1	—
"                    5 or more "	—	2	—	—	—	—	—
(c) Ashpits used by 2 tenants, . . .	—	12	—	—	1	26	—
"                    3          "	—	6	—	—	—	10	—
"                    4          "	—	9	—	—	—	2	—
"                    5          "	—	4	—	—	—	2	—

*An Account of General Inspections, and of Special Inspections or Enquiries, including the Supervision of Slaughter-houses and other Offensive Trades, and the Sanitary Condition of Factories and Workshops.*

1. *Housing*.—Inspections, in terms of the Housing (Inspection of District) Regulations, 1928, were made of 210 houses, of which 12 were reported on to the Local Authorities with a view to making Demolition or Closing Orders, 46 were made in all respects fit for habitation by the execution of improvements or repairs, 31 were provided with a sink and water supply inside, 25 with water-closets, and 10 with new earth closets.

There is an insufficiency of working class dwellings throughout the area, and there is not enough being done with the provision of new houses to allow of Demolition and Closing Orders being put into operation. In the case also of houses requiring improvements, it was found in a few instances that the whole of the works necessary to make the houses in all respects fit for habitation, such as the strapping of walls plastered on stone and the provision of adequate lighting and ventilation, could not be executed unless the houses were vacated. The want of alternative accommodation resulted in those improvements being deferred and in the houses being marked for future attention.

New houses completed in 1931 were distributed as follows:—Garioch District, 4; Huntly District, 8; Oldmeldrum Burgh, 1; and Kintore Burgh, 2—total, 15, of which 5 were erected, with the aid of a subsidy, by private enterprise, 5 by the Forestry Commission, and 5 by unassisted private enterprise. Under the Housing (Rural Workers) Act, applications were approved for assisting with the reconditioning of 21 dwellings—17 in Garioch District and 4 in Huntly District. The following table shews the total number of houses erected or improved under State-aided schemes:—

Districts and Burghs.	Garioch District.	Huntly District.	Old-meldrum Burgh.	Kintore Burgh.	Total.
1. Local Authority Houses, . . . . .	10	12	13	12	52
2. Houses erected by private enterprise (subsidy paid),	58	12	1	5	76
3. Dwellings subsidised under the Housing (Rural Workers) Act, . . . . .	78	11	—	—	89
Totals, . . . . .	146	35	19	17	217



Special inspections and enquiries were made throughout the Districts in connection with a proposal to erect 84 new houses under the Housing (Rural Authorities) Act, 1931, which will permit of houses being provided at rents impossible under any other Acts, but limited to the class of agricultural worker or persons in substantially the same position. It was found that there was a clamant need for such houses, not only to provide accommodation for families occupying sub-let apartments or otherwise without houses, but also to enable the Local Authority to take action regarding houses which have been reported as unfit for human habitation. The Town Council of the Burgh of Kintore considered the provision of houses in terms of the Housing Act of 1930, but ultimately decided to proceed under the Housing (Financial Provisions) Act of 1924, and eight houses were in course of erection at the end of the year. The Town Council of the Burgh of Oldmeldrum have a scheme in hand for the erection of twelve houses in terms of the Housing (Scotland) Act, 1930.

2. *Slaughter-houses and Offensive Trades*.—Routine inspections continue to be made of the private slaughter-houses situated at Kemnay and Kintore, where a steady trade, averaging 20 carcasses per week, is satisfactorily handled. Application was not made for renewal of the licence for Rhynie slaughter-house, and business ceased during the year at Daviot slaughter-house on account of an arrangement having been made for the supply of meat to the public institution there being obtained from dead meat markets.

Messrs. Dundas Brothers erected a factory and began the business of knackers and by-products manufacturers at South Cottoon, Kintore. The buildings are composed of brick, concrete, and iron, with a floor area of 4,300 square feet, well lighted and ventilated, and so arranged as to allow of extensions if warranted. Advantage was taken of a rise in the site to erect the slaughter-house on a high level, where the raw materials are prepared and passed by gravitation from a bone crusher to three dry-rendering machines situated on the low level. In dry rendering, the material is rendered inside a steam-jacketted vessel with heavy stirring gear. The steam is drawn off as formed by a fan and is conveyed, in a flue below the floor, to the steam boiler exhausting into the chimney stack. No water is added and no live steam touches the meat, therefore the process is said to be dry. The material is thoroughly cooked, sterilised, and dried. At the end of the drying period, the material is allowed to settle and the discharge door is slacked off, so that the fat and liquids run off into vessels provided. The residues are then fed into a turbine centrifugal fat extractor and treated there for half an hour to run off fat and oil. Each extractor has two baskets. While one is being charged, the other is being treated. The solid residues are then transported, by means of a crane, to the grinding department. Here they are allowed to cool, and are then ground up in the disintegrator. The meal is then packed into bags and is available for sale as poultry or pig food, which contains approximately 45 per cent. of albuminoids, 15 per cent. of fat, and 25 per cent. of phosphates.

The water supply is pumped from a well to a capacious storage tank, from which it gravitates to any part of the factory, and the quantity is found to be abundant. The effluent, which consists mainly of floor washings, is first treated in a series of septic tanks and is then dealt with by land filtration, for which there is a suitable area of rough ground available. Altogether, the plant is of a specialised character, and I have hitherto been unable to detect any nauseous fumes in the locality of the factory.

3. *Factories and Workshops*.—Three factories and two workshops were provided with new sanitary conveniences, and several verbal intimations were given for the cleansing and lime-washing of premises.

#### *Burial Grounds.*

The transference of the management of burial grounds to the District Councils resulted in numerous improvements and extensions being carried out.

GEORGE WATT, *Sanitary Inspector.*

## IV.—DEESIDE DISTRICT.

1. *Water Supply*.—The Special Water and Drainage Districts are Aboyne, Braemar, Kincardine O'Neil, Lumphanan, Torphins, and Tarland.

ABOYNE.—As mentioned in my last year's report, the recommendation of Messrs. Tawse & Allan, Civil Engineers, Aberdeen, was approved of, and the work carried out under their supervision. A new 7-inch bitumen lined steel pipe main was laid from the reservoir to the fountain near the centre of the village, a distance of about 2,700 yards. About 430 yards of 5-inch, 760 yards of 4-inch, and 300 yards of 3-inch branch mains (also bitumen lined steel pipes) were also laid down. There is no scarcity of water at any of the high level houses now, since the new pipes were laid.

The reservoir supply pipe from Allt Roy was scraped for its whole length, because the available quantity was below the requirements of the village. The scraping greatly improved the supply, as the reservoir has been overflowing ever since the work was carried out. The quantity of water being delivered from the end of the pipe from Allt Roy before scraping operations were commenced was 62,560 gallons per day, and the quantity after scraping, 99,540 gallons. This represents an increase of 36,980 gallons per day, or 59 per cent.

The total cost of the whole works carried out is about £4,000.

BRAEMAR.—No trouble occurred, and an ample supply was maintained throughout the year.

TORPHINS.—As scarcity occurred frequently last summer owing to corrosion of the pipes, the District Council, on the advice of Messrs. Jenkins & Marr, Civil Engineers, Aberdeen, having submitted Messrs. Jenkins & Marr's report to the County Council, with a recommendation to have the work specified in the report executed, and having received the approval of the County Council accordingly, arranged to lay new mains from both reservoirs. The works consisted of about 2,800 yards of 4-inch C.I. supply mains to the village from the high level and low level reservoirs at Golfhill and West Learney respectively, and minor relative works, at a total cost of about £1,500. The supply is now satisfactory.

KINCARDINE O'NEIL.—As this supply is limited, great care has to be exercised during the summer months, especially to prevent wastage of water. Owing to the alert and careful supervision of the local Water Inspector, no actual scarcity occurred during the summer. The Council are still searching for another supply, but it is difficult to get.

LUMPHANAN.—As proposed last year, the provision of a new main has now been carried out. One thousand four hundred yards of 3-inch bitumen lined steel pipes were laid from the reservoir to join up with the existing mains in the centre of the village, along with minor operations, such as valves, hydrants, &c., at a total cost of approximately £600. The work was carried out under the supervision of Messrs. Walker & Duncan, Civil Engineers, Aberdeen. The supply is now satisfactory.

TARLAND.—The Tarland supply is very satisfactory, there being no trouble during the year.

Outside the Special Districts eleven new supplies by gravitation were laid down, and four had new pumps provided.

2. *Drainage*.—The Special District sewers have all worked satisfactorily, with the exception of a short length at Aboyne, near Shepherd's Bush, which choked occasionally and had to be cleared.

Outwith the Special Districts, improvements continue to be carried out. Seven houses were provided with sinks, baths, and w.c.'s, eleven with sink and w.c., and three with w.c. only. All new drainage work was smoke-tested before being covered up.

3. *Scavenging*.—Scavenging of the Special Districts has been carried out satisfactorily, and the cleansing of ashpits throughout the District has been fairly well attended to.

4. *Nuisances*.—All nuisances reported or coming under my notice were attended to and dealt with.

5. *Inspections*.—General inspections were carried out as formerly, and special inspections were made in connection with infectious diseases notified, and where building, water, or drainage work was being carried out.

6. *Schools*.—All the schools were visited, and on the whole were found clean and well kept. Several were distempered and painted during the summer holidays. A block containing three classrooms, new lavatory accommodation for teachers and scholars, and new drainage scheme, is meantime being carried out at Corse Public School.

7. *Workshops*.—The bakehouses and most of the workshops were visited and generally found clean and in good order. The workshops numbered 131, and 111 visits of inspection were made. Two complaints were found and dealt with.

8. *Dairies*.—The number on the register at 31st December was 31. One hundred and eighty-six visits of inspection were made. Two complaints were found out and dealt with.

9. *Slaughter-houses*.—The number on the register is nine. They were regularly visited, and always found clean and in good condition. Two hundred and eight visits were made. One complaint was found and dealt with.

10. *Common Lodging-houses*.—There are none in the District.

11. *Burials*.—Undertaken in terms of Section (69). None.

12. *Burial Grounds*.—The burial grounds have all been kept in good order, and no complaints found or received.

13. *Housing, &c., Acts*.—During the year, four houses were erected privately without assistance. Fourteen were erected by the Local Authority—six at Aboyne, four at Lumphanan, and four at Torphins. Twenty-five were reconstructed or improved under the Rural Workers Act, and 25 had repairs carried out privately or under Section 16 of the Public Health (Scotland) Act, 1897.

ALEX. MORRICE, *Sanitary Inspector*.

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## V.—TURRIFF DISTRICT.

*Water*.—The water supply for Cuminestown Village is still in a most unsatisfactory state, nothing has been done to secure or take advantage of the springs available near the village to augment their supply, and I fear that unless pressure is brought to bear on those responsible, nothing will be done. Several complaints were received regarding insufficient water to flush the closets, &c.

*NEW BYTH*.—The water supply is good and sufficient for all purposes, but it may be necessary to raise the head to give more pressure in the centre of the village, which is the highest point.

*GARMOND*.—No complaints were received, and the pumping plant is now giving satisfaction.

*FYVIE*.—The water here is of good quality and meantime sufficient for all requirements, but the main is rather too small to meet any further demand.



ROTHIENORMAN.—Although this place was formed into a Special District and estimates were got for the new water supply, nothing has yet been done to improve matters. The available water is more than would be required for a place three times the size.

Outside the villages, twenty-one new supplies have been got and taken into renovated houses.

*Drainage.*—NEW BYTH.—At present, the drainage of the village is in fair working order, but during the summer it will be necessary for a part, extending from the hotel down to the top of Bridge Street, to be relaid and a flush tank provided.

CUMINESTOWN.—The new sewage works have so far given satisfaction, but although I have asked the Committee to provide a piece of ground adjoining the filters for the treatment of the sludge, no movement has been made in this direction.

Owing to the want of this small piece of ground, it cost the village £11 to clear out the tanks.

Thirty-five houses have been properly drained in various parts of the District.

*Infectious Diseases.*—The following cases were notified :—Diphtheria, 5; scarlet fever, 8; erysipelas, 3; pneumonia, 6. Eleven cases were removed to Turriff Hospital. Premises disinfected, 14; bedding, &c., disinfected, 22.

*Slaughter-house.*—Weekly visits are paid to the only slaughter-house in the District, and the premises have always been found clean.

Only 82 animals were killed during the year.

Six motor vans, from various places, visit this District with butcher meat.

*Unsound Food.*—Fish destroyed, 70 lbs.; tinned fruit, 32 1-lb. tins; and one tin corned meat.

All bakers' and butchers' shops and vans were inspected.

*Knackery.*—This establishment is being conducted in a satisfactory way. The premises have been enlarged and a bone crushing plant put in. It is intended to erect a high close fence all round the premises, and to improve the drainage by constructing a long filter bed, 30 yards long and 5 feet wide.

*Burials.*—One interment was made under Section 69.

*Schools.*—All the schools were visited during the year and found in a fair state of cleanliness. Some extensions are being made on Auchterless School, and a new school is being built at Fisherford.

*Workshops.*—All the workshops and bakeries have been visited and found clean. One complaint was received from the Inspector of Factories and dealt with at once.

*Housing.*—Thirty-nine houses were renovated under the Housing (Rural Workers) Act, 1926, and two new sleeping places were provided. Eleven houses are being renovated, and two houses are being built under the 1923 Act.

Name of Village.	W.C.'s.	Tenants per W.C.	Without Water in Sinks.	Dry Closets.	Ashpits.
Cuminstown, .	42	1	42	57	24
New Byth, . .	14	1	49	60	63
Garmond, . .	—	—	18	30	27
Fyvie, . . .	33	1	—	3	20

*Burial Grounds.*—These have been visited and found in good order.

*Tents and Vans.*—Fourteen visits were made to these, on one camping ground. Twenty tents were found. These were shifted, owing to there being no water supply at or near the place, and the filthy state of the surroundings.

A. B. FINDLAY, *Sanitary Inspector.*

## VI.—ABERDEEN DISTRICT.

*Water Supply.*—The work in connection with the scheme for improving the joint supply for Dyce and Waterton Special Districts was commenced a few days before the close of the year. There are still about 400 houses in these two Districts without water and sink inside the house, but with an insufficient water supply one could not press for this kind of work being carried out. It is to be hoped, however, that the proprietors will readily respond when called upon, as, where at all possible, no house should be without water and sink inside. The supplies in the other Special Districts gave very little trouble during the year. I had fourteen samples analysed by the County Analyst, which were reported on as follows:—4, good; 5, fair; and 5, bad. Four of the latter have been duly attended to, and the remaining case is receiving attention. One of the samples was reported as being plumbo-solvent, with the result that the whole of the lead piping had to be lifted and replaced with a galvanised iron pipe.

*Drainage.*—The sewers within the six Special Districts gave very little trouble during the year. Complete new drainage systems were laid down in connection with 51 new houses and 45 reconstructed houses. Extensions and improvements were made in connection with 38 houses. During the year, I made 69 smoke tests.

*Nuisances.*—Complaints were fewer in number than in former years, and these when received were immediately attended to. The nature of the work under this heading was of the usual routine order, and does not call for any special mention.

*Poultry Houses in Special Districts.*—In more than one of my previous reports I passed comment on the unsightly and defective buildings used as poultry houses, and more especially within the area of the Special Districts. In these reports I suggested that the time had come when something should be done to regulate the kind of structure to be allowed for this purpose; many of the places referred to are made up of old boxes and flattened out drums, and in some cases they are covered over with old linoleum. I make no apology in raising the question once again, and I believe I am not far short of the truth when I say that 75 per cent. of the poultry houses within these areas ought to be cleared away, and I am certain the respective owners would be none the poorer for it. How could fresh and wholesome eggs be produced from poultry shut up all the year round in such dilapidated erections and with only a few square yards of a run, and the latter made up of several inches deep of coal ashes and other refuse? Many of these places are rat infested, and impossible to get satisfactory results when dealt with.

*Housing.*—There were no houses built during the year by private enterprise for the purpose of letting.

Ten houses were erected without State assistance—three of three apartments, three of five apartments, and four of six or more apartments. This is a reduction of five as compared with the previous year.

Under the scheme for assisting private enterprise there were 13 houses built and finished, and 6 were in course of erection at the end of the year, as against 33 and 5 respectively in the previous year.

Under the County Council's Housing Scheme, 28 houses were built and occupied—16 at Craigton, Culter, and 12 at Rocks of Balmedie Quarry. The demand for houses is as acute as ever it was, and especially in the Peterculter and Newhills Parishes. The last census shows increases in population of 565 in the former and 477 in the latter. There are very few insanitary houses in Peterculter, but the same cannot be said of Newhills. In the Waterton Special District alone there are over 50 houses which ought to be closed against being let as dwelling-houses. Progress cannot be made until houses are built to



take their place. Demolition Orders were served upon three houses in Stonewood and one in Bucksburn, and the tenants in the former were only out a few days when the roof fell in. The Bucksburn house is still occupied, and, although the roof is in a very dangerous state, no alternative accommodation has so far been found. Seven houses were closed during the year—one by Closing Order and the others voluntarily. Four of the seven houses are totally done and unsuitable for reconstruction, one is now being reconstructed, and I am endeavouring to persuade the proprietors of the other two to have these reconstructed.

*Housing (Rural Workers) Act.*—During the year, 44 applications were received and approved, and a total of 82 houses were included in the 44 applications. Seventy houses were finished and again occupied, and 4 of these were buildings not previously occupied as dwelling-houses.

In each of the 70 houses water and sink have been provided if not there before; 11 houses had bathroom with hot and cold circulation complete; 10 others had water-closet fitted up in place of existing privy. It is very essential during the erection of new houses, and the reconstruction of old ones, that the work should be inspected from time to time in order to check any careless workmanship and defective materials. A great many cases of damp in the walls are caused where the wooden floor has been laid down before the plaster work is begun, and unless two or three strips of lath are left off until the first coat of plaster is applied and the dropped plaster raked out, a solid mass is formed between the stone and the lath, thereby preventing the circulation of air and almost sure to show dampness on the plaster. Since the Act was adopted there have been 248 houses reconstructed or otherwise improved within the District. Of that number, 16 were derelict houses and 15 were buildings converted into dwelling-houses. There are still a number of houses very much in need of improvement, and even with the substantial assistance given under the Act, a great many proprietors are financially unfit to take advantage of the same.

*Houses Repaired or Improved—Without Assistance.*—Some 68 houses had improvements and repairs of a more or less degree carried out. Ten houses had bathrooms fitted up all complete; seven had w.c.'s in place of privy; seven properties had additional w.c. accommodation provided; ten houses had sink and water fitted up inside; three new water supplies were laid down, and two were improved, &c. Letters of warning were served upon four parties in connection with dirty houses, with satisfactory results in three of the cases. The other is an old offender of several years' standing, and, I am afraid, will have to be reported for prosecution. One case of smoke nuisance was dealt with verbally, the owner of the factory, when requested, having taken every precaution to prevent a recurrence of the nuisance. I received a petition signed by 20 tenants residing in the immediate neighbourhood of a large accumulation of granite dust from a stone crusher. When a high wind was blowing in certain directions, the dust was blown about to such a degree that the insides of the houses were white with the dust. Immediately the matter was reported, no more dust was tipped on the heap, and the cause of the nuisance is now removed.

*Dairies.*—During the year, 18 were removed from the register and 17 were added, leaving a total of 292 registered dairymen for the production and sale of milk. Licences were again granted the Rowett Research Institute for the production of certified milk and Grade A. (T.T.) milk. Licence to produce Grade A. (T.T.) milk has also been granted for the Home Farm of Grandhome, where a herd of 34 cows is kept.

Three hundred and seventy-eight visits of inspection were made, and the average number of cows in the cowsheds registered for the production of milk was 4,014. Verbal requests were given first of all when defects were found, and upon a subsequent visit of inspection the most of these were found to have been attended to. I had, however, to serve notices upon 17 parties

who took no notice of the verbal warning, and 4 of these had to receive final warning before the work was attended to. There are still a few byres in the District that are not up to the required standard, but several of these are upon estates where a large number of the tenants carry on a dairy farm, and one cannot expect to get the whole of the places improved in one year. It is not the construction of the premises altogether that is responsible for the production of a pure milk supply, but the cow and the people who handle the milk.

*Infectious Diseases.*—During the year, the following were notified :—Scarlet fever, 37; diphtheria, 15; erysipelas, 11; puerperal fever, 5; cerebro-spinal meningitis, 1; dysentery, 2; pneumonia, 63; and polio-encephalitis, 1—total, 135. Sixty-three houses and 74 sets of bedding and clothing were disinfected.

*Factories and Workshops.*—Very few changes of occupancy were notified during the year. One hundred and nine inspections were made and two notices were served, and these were duly attended to.

WILLIAM PARK, *Sanitary Inspector.*

## VII.—ALFORD DISTRICT.

*Water Supply.*—There are at present three Special Water Districts, viz., Alford, Montgarrie, and Lumsden.

In every case a good and sufficient supply of water was maintained during the year. The systems are all in good order.

A requisition for the formation of the hamlet of Kirkhill, Kennethmont, into a Special Water District is meantime receiving consideration. This small place is at present supplied with water by gravitation, the supply having been introduced by a local committee over thirty years ago. The main pipe is, however, too small to meet the present-day requirements of the place. There is an ample supply of good water at the source.

The improvement of water supplies to individual houses throughout the District continues.

*Drainage.*—The Village of Alford was formed into a Special Drainage District in the early part of the year, and all the work in connection with the system has now been completed, including settling tanks and purification works. The system has only been a few weeks in operation, but already there is a marked improvement on the burns into which the old drains discharged.

The formation of the Village of Lumsden into a Special Drainage District is at present receiving attention. A preliminary survey has been made, and it is hoped that the scheme will be proceeded with on an early date.

A number of dwelling-houses have had the drainage systems renewed, while others have had improvements carried out.

*Nuisances.*—Twenty-three intimations were sent in connection with nuisances which came under my notice in the course of general inspections, and a large number were dealt with verbally.

*Scavenging.*—As mentioned in my last year's report, the Village of Alford was formed into a Special Scavenging Area. Household refuse is now removed twice weekly, and, with the abolition of ash-pits, there is a great improvement in the sanitary condition of the place.

No progress has to be reported in connection with the formation of the Village of Lumsden into a Special Scavenging Area.

*Infectious Disease.*—Twenty-seven visits of inquiry were made—19 cases were removed to hospital; 19 houses, and 19 sets of bedding were disinfected.

*Housing.*—No houses were built by the Local Authority in this District during the year. Five houses were built by unassisted private enterprise, two of which were cottar houses. Four applications were approved for a grant under the Housing (Rural Workers) Act, 1926. Inspections were made of 126 houses, and of these, 9 were not in a fit condition for occupation as dwelling-houses. They are being dealt with.

*Slaughter-houses.*—There are three small private slaughter-houses in the District, used by the local butchers for slaughtering for home consumption. One hundred and eighteen visits were made, and no cause for complaint was found.

*Meat Inspection.*—One hundred and eighty-three carcasses were inspected, and none had to be detained for examination by the Meat Inspector. Fifty-four inspections were made of shops and other places where foodstuffs are sold, and 10 lbs. of tinned meat were seized and destroyed with the owner's consent.

*Schools.*—All schools in the District were visited, and no cause for complaint was found. Water-closets have now been introduced at Tough P. School. A new water supply at Ardlair P. School has been approved.

*Workshops.*—There are 74 workshops on the register. Ninety visits of inspection were made, and three defects were found. All were at once attended to by the occupiers.

*Burial Grounds.*—Extensions are being made at Kennethmont and Strathdon. Several of the old disused burial grounds are being levelled and properly fenced.

One burial was undertaken under Section 69 of the Public Health (Scotland) Act, 1897.

JAS. ALLANACH, *Sanitary Inspector.*

## BURGH OF INVERURIE.

*Water Supply.*—The water supply to the Burgh is obtained from three different sources, viz.:—Mill of Easterton, Keith-hall, and Port-Elphinstone.

Each source of supply is visited periodically during the year to ensure that all apparatus is kept working in a satisfactory condition, and further, to clean out all settling tanks and reservoirs, and to renew the filter beds.

A good supply of water is maintained during the whole year, as will be seen by the aftermentioned statistics.

The water is of excellent quality, clear and transparent and very suitable for all domestic and trade purposes.

Readings are taken at intervals in order to ascertain the rate of supply, and the average of these is as follows:—

Mill of Easterton	.	.	.	250	gallons	per	minute.
Keith-hall	.	.	.	60	"	"	
Port-Elphinstone	.	.	.	8	"	"	
Total				318	"	"	

By taking the foregoing rate of supply at the average of 318 gallons per minute, we have a total of 19,080 gallons per hour, or an average of 457,920 gallons per day of 24 hours.



By dividing this total supply by the average population of say 4,450, we have a daily supply at the rate of about 102 gallons per head per day.

The water mains throughout the Burgh are scoured out practically every month and sometimes oftener if found necessary. This ensures the public obtaining as pure a water as it is possible to obtain.

Several extensions were made to the water mains at Kemnay Road and Victoria Street in connection with the new housing schemes. This work entailed an expenditure of £108.

Owing to the increasing number of new houses being erected at Cuninghill Road, and the inadequacy of the existing water main to meet the demands of these houses, it was decided to lay a new 4-inch main along Cuninghill Road from its junction with High Street to a point just outside the hospital gate, a distance of approximately 290 yards. This main cost approximately £115.

A new 4-inch water main was also laid along Beverley Road for a distance of about 108 yards. This main cost approximately £38.

During the year it was found necessary to renew several of the stop cocks on private service pipes.

During the reconstruction of the road at West High Street, it was considered advisable to remove all private stop cocks from the carriageway and place them on the footpath.

Opportunity was also taken during the alterations to place a stop valve on the 6-inch main at a point near the junction of West High Street and North Street.

*Drainage.*—All the main sewers and private drains are being kept in a very satisfactory condition.

The overflow from Brandsbutt Reservoir connects up with the main sewer at the top of North Street, and the water therefrom tends to keep the sewer at this point of the town in a very clean condition.

During the year new drains were laid in connection with 20 houses erected by the Town Council, viz. :—Eight houses at Kemnay Road, and 12 houses at Victoria Street. In addition to this there were new drains laid in connection with two houses erected at Cuninghill Road and one house at Upperboat Road.

Several other house drains were overhauled or renewed for the purpose of installing new water-closets and sinks.

On West High Street a new 18-inch sewer was laid alongside the existing sewer for the purpose of relieving this sewer as far as possible during heavy rainfalls. This sewer was laid from a point near the junction of Constitution Street to the manhole near the foot of West High Street, a distance of approximately 100 yards, and at a cost of £200.

The main sewer at Port-Elphinstone, from the Mill Lade to the outlet at the meeting of the Rivers Urie and Don, was all thoroughly cleaned out and any broken parts repaired.

*Scavenging.*—The scavenging of the Burgh is still being carried out in a satisfactory manner. In order that every street receives the attention of the scavenger, the Burgh is divided into three sections, viz. :—

*No. 1 Section.*—Victoria Street, North Street, Constitution Street, Harlaw Road, and all side streets leading off.

*No. 2 Section.*—West High Street, Market Place (East and West), High Street, St. James's Place, and all side streets leading therefrom.

*No. 3 Section.*—Port-Elphinstone.

Each of the foregoing sections is swept daily, with the exception of Port-Elphinstone, which is cleaned every Tuesday and Friday afternoon.

Referring to the removal of household refuse, which is carried out by contract, it might be mentioned that since the Council adopted the alternate system of removal, everything has worked very economically and efficiently.

The method of removal is as follows:—

*Monday, Wednesday, and Friday Forenoons.*—Keith-hall Road, High Street, Market Place (East and West), Southerford Road, West High Street, Westfield Gardens, Middlemuir Road, Blackhall Road, and Victoria Street, with all lanes and courts leading therefrom.

*Monday, Wednesday, and Friday Afternoons.*—St. James's Place, Upper-boat Road, and Port-Elphinstone.

*Tuesday, Thursday, and Saturday Forenoons.*—North Street, Saphock Place, Watt Crescent, Gallowfold Lane, Mortimer's Lane, Pirie's Lane, Constitution Street, Harlaw Road, and Garioch Road, with all other lanes and courts included.

All refuse from shops and other business premises is generally removed on Tuesday and Thursday afternoons.

The only ashpits now used within the Burgh are those in connection with schools and houses in the outlying district, together with those used by the scavengers.

*Sanitary Arrangements throughout the Burgh.*—List of houses having the use of and without sinks, water supply, and water-closets inside.

Distribution of tenants and the number of blocks where there are:—		Use of water-closet inside.	Use of water supply.	Use of wash-house.	Use of bath-room.	Houses without sink or water in house.
Blocks containing—						
One house, . . .	548	548	538	284	255	10
Two houses, . . .	83	83	57	—	—	26
Three „ . . .	50	50	50	33	—	50
Four „ . . .	52	52	52	52	—	104
Five „ . . .	11	11	11	11	—	28
Six or more houses,	14	16	14	14	—	84
Total, . . .	758	760	722	394	255	302

In several instances, where it is shown that sufficient water-closet or water supply is not provided for the separate use of each house, the proprietors are being notified to instal these fittings.

During the year 34 new water-closets were installed, together with 23 baths, 23 sets sink and tub, 2 sinks, and 24 wash-hand basins.

There are still two dry earth closets, but one of these will probably be removed during the next few weeks.

*Housing.*—The housing conditions within the Burgh are becoming more and more satisfactory.

With the additional houses being erected year after year, both by the Town Council and by private enterprise, there is the apparent desire among all classes for better housing accommodation.

During the year 20 houses were erected by the Town Council, of the three apartment type, while three houses were erected by private individuals, of the bungalow type. This, together with several alterations and improvements which are being carried out to older houses, shows the desire for better housing accommodation.

The Town Council are at present going on with a scheme whereby it is hoped to erect other 26 houses during the year 1932.



*Infectious Diseases.*—During the year the number of cases of infectious diseases notified was as follows:—Tuberculosis, 3; erysipelas, 1; diphtheria, 3; scarlet fever, 7; pneumonia, 11; and chickenpox, 1.

Inspections were made in each respective case, and the dwelling-houses, together with the bedding, were disinfected.

*Nuisances.*—Systematic inspection is made throughout the year of the whole Burgh in order to ascertain what nuisances exist requiring the attention of the parties responsible. Altogether 368 inspections were made, 14 complaints received, and 51 nuisances dealt with and remedied.

The nuisances principally consisted of defective water-closets, drains, rhones, roofs, and water pipes.

*Slaughter-house.*—The public slaughter-house, which is owned by the Town Council, is situated in premises off North Street, and consists of six cattle booths, pig booth, and two byres with open pen accommodation. The booths are let to local cattle dealers and butchers yearly, and they are held responsible for keeping these in a clean and satisfactory condition. The walls and floors are washed down daily after slaughtering is over.

The number of animals killed at the slaughter-house during the year ending 31st December, 1931, was as follows:—

Oxen.	Bulls.	Heifers.	Cows.	Sheep.	Calves.	Pigs.	Total.
5,481	175	6,545	492	21,885	10	204	34,792

*Offensive Trades.*—There are four offensive trades carried on within the Burgh, viz.:—Two Hide and Tallow Companies, and two Gut and Pudding Manufacturers. The Hide and Tallow Companies' works are visited practically every other day, while the gut premises are visited monthly.

All these premises are kept in a very clean condition, being washed down daily, and the rubbish removed.

*Schools.*—There are three schools in Inverurie and one at Port-Elphinstone. These four schools are kept in a very good state of repair. The schools are kept clean and tidy, and opportunity is taken during week-ends or holidays for disinfecting the classrooms, &c.

*Factories and Workshops.*—There are 23 factories on the register, including laundries, and 23 workshops. Periodical inspections are made of all these premises during the year.

On four occasions owners were called upon to clean their workshops, otherwise all the others are kept in a very satisfactory condition.

*Common Lodging-houses.*—There are no houses in the Burgh defined as common lodging-houses.

*Dairies, Cowsheds, and Milkshops.*—The following were on the register for the year ending 31st December, 1931:—

*Cow-keepers.*—There are eight persons who keep one or two cows principally for their own use, and any milk left over is generally sold to friends or neighbours.

*Retail Purveyors of Milk.*—There are six persons who retail milk to customers throughout the Burgh.

*Wholesale and Retail Purveyors.*—There are three persons on the register, mostly farmers, who sell their milk wholesale to dairies in Aberdeen, and retail the balance to customers within the Burgh.

Inspections are made during the year of all premises and vehicles, but these are generally kept in a very satisfactory condition.

WILLIAM W. CONNER, *Sanitary Inspector.*

## BURGH OF ELLON.

*Water Supply.*—There was a good supply of water nearly the whole year with the exception of a short time in the middle of summer, but the rain came on just then and relieved the shortage. I went out a few nights and found some leaks and running taps, so, with the assistance of the rain and getting the leaks repaired, the supply came all right again and was no further trouble, with the exception of the high houses in the Auchterellon portion of the Burgh. The carrying mains from the reservoir to the Burgh are insufficient to give the necessary supply during the hours of maximum demand. This causes occasional complaint about want of pressure.

The distribution system within the Burgh has been greatly improved during the past year. The old 2-inch cast-iron main in Station Road from Allan & Watt to Forbes Brothers, Stonecutters, which was very much corroded, was lifted and replaced by a 4-inch cast-iron pipe. The result is a great improvement in the supply of water for the houses in the Auchterellon portion of the Burgh during the hours of maximum demand.

There is a little over 100 yards of 2-inch cast-iron main to lift and renew with a 4-inch cast-iron pipe between the Parish Home and Allan & Watt, which will further improve the distribution system in the Burgh. This will be done when the days get longer.

*Drainage.*—Drains and sewers have all been working well during the whole year.

Drains and sewers in Station Road, Ythan Terrace, and the Square, require to be properly cleaned every second year to keep them in proper order, and this will require to be done this summer.

The main sewer in Bridge Street was extended 65 yards for the new houses on Turnishaw site.

The system of the Burgh discharges into the River Ythan and requires to be cleaned every other week during the dry season when the river is low.

*Nuisances and the Cleansing of the Burgh.*—All nuisances which have come under my notice have been dealt with. Intimations of these nuisances were sent to the authors as soon as inspections were made. All were removed or are being removed. Scavenging and refuse collecting is carried out daily and the system is working satisfactorily.

According to Section 109 of the Burgh Police (Scotland) Act, 1892, there must be suitable receptacles meeting the requirements of the Inspector of Cleansing. Very many boxes used for this purpose do not do so, and it should be emphasised that any old box is not good enough for the purpose. Many are too small, some are too large. The former are of insufficient capacity, and the latter difficult to handle by the workmen.

Owing to the variety of bins, and the predatory habits of dogs and cats, and the effects of wind and stormy days, the amount of refuse that reaches the streets and adjacent premises is considerable and causes a great deal of extra sweeping, not to mention the deposit of dust on milk and other foodstuffs.

The remedy for this state of affairs would be the general adoption of the sanitary dustbin. Household refuse ought to consist of little more than ashes; vegetable and other refuse should as far as possible be burned at home. The refuse dump is outside the Burgh boundary, and the dumping is carried out according to the Department of Health regulations and to the satisfaction of the Chief Inspector of Cleansing.

The dump is infested with rats and it is necessary to reduce their number periodically by means of gassing with calcium cyanide.

*General Inspections.*—General inspections were carried out as formerly. Special inspections were made in all cases in regard to complaints, and also in connection with houses where sanitary improvements were being carried out.

*Sanitary Condition of School.*—The cleansing of the school has been well attended to, and the school is in a first-class sanitary condition.

*Factories and Workshops.*—There are 35 factories and workshops in the Burgh. Inspections were carried out as formerly, and these were found to be kept in good condition.

*House Let in Lodgings.*—There is only one house let in lodgings within the Burgh. Inspection showed that the bye-laws were being well attended to.

*Dairies and Cowsheds.*—These come under the control of the County Veterinary Inspector and Sanitary Inspector, but visits of inspection were made in the ordinary course of work, and these have been brought up to a good standard with the exception of one cowshed, which is going to be put right in a very short time.

*Burial Ground.*—There is just one burial ground within the Burgh—the old churchyard—where there are very few interments. The burial ground is kept in good order.

*Housing.*—Under the Town Council Housing Scheme, 10 houses have been erected, 6 are occupied, and other 8 are in course of erection. This will be a great help to the housing of the Burgh when all are finished.

There is quite a number of old houses in the Burgh. In particular, 14, where inspections were made.

The work of inspections has been confined to houses where appearance indicated structural defects.

These houses were principally damp and defective, had leaking roofs, lack of and defective eaves, gutters, and conductors, irregular floor surface, sagging and low ceiling, insufficient light and ventilation, broken plaster, and want of domestic and sanitary conveniences. Some of them would have to be vacated before they could be properly repaired.

Houses without water and sinks	.	.	.	67
3 houses of 6 tenants	.	.	.	1 w.c.
5 houses of 5 tenants	.	.	.	1 w.c.
12 houses of 4 tenants	.	.	.	1 w.c.
14 houses of 3 tenants	.	.	.	1 w.c.
22 houses of 2 tenants	.	.	.	1 w.c.
Ashpits— <i>Nil</i> .				
Privies, 2.				
W.C. converted— <i>Nil</i> .				

GEORGE DUNCAN, *Sanitary Inspector*.

## BURGH OF HUNTLY.

1. *Water Supply.*—Owing to the exceptional rainfall of the past year, the water supply has been sufficient to meet the requirements of the Burgh without having to draw upon any of the water from the enclosed catchment area (which has not been the case for a number of years).

The water supply of the Burgh has engaged the attention of the Council during the year, when consideration has been given to the augmentation, improvement, and adequacy of the filters provided, and engineers appointed by the Council prepared extensive reports and estimates with the object of carrying out a scheme aided by a grant from the Unemployment Grants Committee, but owing to the call for economy, together with the reduction of grant offered, the Council did not consider the time opportune to proceed with the scheme.



The result of the survey has shown the necessity of keeping accurate records of the flow of water into the reservoirs at Craighead, and this work has been carried out at regular intervals over the greater part of the year. The measured average flow is approximately 210,912 gallons per day, which allows about 53 gallons per 24 hours per head of population. While this supply may be sufficient for present needs, there would be no adequate margin covering a dry spell of weather (when the yield from the springs will be reduced), or for future extensions.

The distribution system was carefully tested and about 90,000 gallons per day were estimated as being dissipated by wastage. In consequence a competent water inspector was employed by the Council and a thorough inspection of all the internal fittings and underground mains was made early in the year. The inspections revealed 365 defects, and 194 written notices were served in connection therewith; subsequent inspections revealed additional defects, and 20 further notices were served.

Householders and others are not so careful of this valuable commodity as they might be, and this, together with defective fittings, accounts for a considerable part of the total consumption of water. We are so accustomed to having unlimited supplies of water that we are disposed to accept its presence as we do the air we breathe. Old houses have been and are being equipped with better water appliances, a number of new houses are being built, and these are all equipped with baths, &c., with the result that greater demands are being made upon the water supply.

*Improvements carried out during the year.*—An additional 4-inch bitumen-lined steel pipe has been laid from Gordon Street, along Bleachfield Street, to Church Street, a distance of about 211 lineal yards, to give the necessary supply of water to the new housing scheme.

2. *Drainage.*—No extensions to the main sewers have been found necessary during the year. Careful supervision and care has been given to the existing system. A break in the 9-inch sewer (caused no doubt by the heavy motor traffic) was found on Deveron Road, at a point where the sewer crosses the burn under the roadway. This was repaired, together with the renewal of several new manhole covers on this street. Periodical inspections and flushing were carried out on certain sewers, where the fall is insufficient and deposits likely to occur, keeping the sewers in good serviceable condition.

Defects of house drains at several properties were found, and these were all repaired or renewed with one exception, which still requires attention. Ten smoke tests were carried out, and four minor alterations supervised.

3. *Scavenging and Cleansing.*—There is nothing of importance to report in connection with the cleansing of the Burgh. The aim of the Local Authority, together with the endeavour of its administrators, is to have everything kept as "sweet and clean" as possible with the least possible expense to the ratepayers. I do wish that citizens would help a little more towards this desirable end, and quite appreciate that thoughtlessness is often more to blame than anything else. For instance, shopkeepers unpack their goods on the pavement, with the result that straw and other packings are carried away by the wind. They go somewhere for some one to clean up, or lodge in the street channels to remain there until the scavengers arrive; then pedestrians and others throw unwanted litter, such as match and cigarette boxes, greasy fish-and-chip bags, parts of newspapers, indiscriminately on to the streets. Surely it would benefit the health and well-being of the community if a little more care were taken to keep the streets tidy. In any case it is a duty we owe to our neighbour and to all who pass by.

Under the present system, refuse is collected from all houses in the Burgh every alternate day, between the hours of six and eleven a.m., and deposited at the Auction Mart Depot on the east side of the Burgh.

The provision of better dustbins is still desirable, but it is gratifying to note that some improvement in this direction has been made during the year. Household-ers are reminded that dustbins should have good-fitting lids, so that the contents may be kept perfectly dry, and that the contents of these receptacles should contain little more than ashes; all garbage should be burned or buried, and no scraps should be thrown out to encourage flies and vermin. An effort should be made by every ratepayer to do everything possible in the interest of the general health of the community.

There are 6.25 miles of streets and these are all swept regularly, the main streets being swept daily and the others as required. On Sunday mornings the principal streets are attended to.

The total cost of these services, which includes collection and disposal of refuse, street sweeping, emptying gullies, collection and burning of papers, &c., for the year ended 15th May, 1931, was £887 10s. 7d., but as the income for removal of garden refuse amounted to £7 15s. 10d., the net expenditure was £879 14s. 9d., or 4s. 8½d. per head of the population.

4. *Nuisances.*—There were quite a number of complaints made by household-ers and others regarding insanitary conditions. The principal complaints were due to choked drains, water closets, defective and bad housing conditions, and offensive smells arising from various causes. These were all carefully investigated, and in most cases remedial measures were taken to remove the cause of the complaints without extreme measures being taken.

#### 5. *Matters affecting Public Health (Housing).*

*Report for year ended 31st December, 1931, on proceedings taken as regards the Inspection, Improvement, and Demolition and Closure of Dwelling-houses.*

#### HOUSING (INSPECTION OF DISTRICT) REGULATIONS (SCOTLAND), 1928.

(1) Number of dwelling-houses inspected . . . . .	120
(2) Number of dwelling-houses which, on inspection, were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation . . . . .	49

#### HOUSING (SCOTLAND) ACT, 1925.

(3) Number of houses of (a) one apartment and (b) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111 . . . . .	(b) 2
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*General information or observations as to the character of defects usually found to exist, as to the extent to which overcrowding was found to prevail, and the steps taken to remedy it, or as to the work of inspection generally.*

As a result of the regular inspections which have been carried out during the year, sanitary defects, the most outstanding of which are stated herewith, have been found to exist:—Defective condition of interiors of many houses; apartments inadequately lighted, badly planned and ventilated; extensive dampness in walls; lack of sufficient sanitary arrangements, conveniences, and water supply within the building.

Quite a number of houses, not included in this return, are being kept under observation, and will require to be dealt with subsequently.

Overcrowding still exists at one house, but, owing to the lack of alternative accommodation, no action has yet been taken.



Additional and better housing in the Burgh is still a pressing need. In many of the houses, rooms in which the windows cannot open, and attics without sufficient light, in many cases lit only by a roof-light, are used as sleeping apartments. These houses afford poor shelter, with the minimum of comfort, for their occupants. Real health and comfort are impossible under such conditions, where there is a general atmosphere of depression caused by dampness, lack of fresh air and sunlight.

*Housing (Scotland) Act, 1930.*—In the question of housing, the Council are carrying out a commendable task, and special attention is being given to the providing of houses under the Housing (Scotland) Act, 1930. During the year three blocks of four three-apartment flatted houses were in course of erection at Bleachfield Street to provide the necessary alternative accommodation for dispossessed tenants. At the end of the year four houses were completed, and four families comfortably housed therein. The houses erected have tended to raise the standard for accommodation, being provided with bathrooms, scullery, larder, and all modern conveniences, and an effort is being made, as opportunity presents itself, to modernise existing houses of a lower grade as far as possible. This, however, in view of the arrangement and construction of such dwellings, is a difficult task. Good housing is of the utmost importance to the well-being of the community, not only from the health standpoint, but from the standpoint of contentment and happiness. The gradual elimination of our slums, and their replacement by modern, well designed, sanitary dwellings, will go a long way towards creating a healthy and contented community. The demand for houses has not yet been met by a sufficient supply (there were over fifty applicants for the four new ones already mentioned), and their erection must not be long delayed if the demands of the community are to be met, and better housing provided for the working classes.

*Housing (Rural Workers) Act, 1926.*—There are still quite a number of other properties which cannot be regarded as satisfactory, which might be reconstructed under the Housing (Rural Workers) Act, 1926. It is somewhat difficult to understand why more applications for assistance are not being received by the Council, who give such favourable consideration to these. Such terms will not last for ever, yet during the past year only two applications for assistance were received regarding modernisation and repair of four dwelling-houses.

6. *Public Conveniences.*—All recent reports have stressed the need of augmented public sanitary conveniences in the Burgh, particularly the want of a central and modern sanitary convenience. If it could be seriously realised what inconvenience is experienced, not only by our own people, but to the constantly growing number of tourists passing through the town, it is unlikely that this phase of the subject would require to appear in any future sanitary report of the Burgh of Huntly.

#### *Sanitary Conveniences.*

It is perhaps a matter of difficulty to decide how far modern requirements ought to be enforced in houses, but surely none will deny that adequate water-closet and sink accommodation should be provided for all tenants, and that no excuse be possible for depositing of waste water in the nearest street gully or channel, as is done in some instances to-day.

Many houses in the Burgh come under this undesirable classification, and the absence of sanitary fittings and a convenient water supply add materially to the difficulties of the housewife, who has to make many daily journeys to a public tap, often no small distance from her home.

The register of houses without adequate modern sanitary conveniences has been revised and brought up to date. The particulars required by the Department of Health are:—

- (1) There are 252 common water-closets in the Burgh, 103 serving two tenants, 73 serving three tenants, and 76 serving four, five, or more tenants.
- (2) The number of occupied houses without water and inside sink is 240, being a reduction of 13 since last report, owing to the closing of 10 houses, and water and sink being introduced into 3 houses. There are 5 sinks used in common, 3 serving two tenants, and 2 serving three tenants.
- (3) There are 3 dry privies remaining at the end of the year, 2 serving one tenant, and 1 serving two tenants.
- (4) There are no ashpits in the Burgh.

*An Account of General Inspections, and any Special Inspections or Enquiries, including the Supervision of Slaughter-houses, Offensive Trades, and Sanitary Condition of Factories and Workshops.*

1. *Slaughter-houses and Offensive Trades.*—Daily visits of inspection to each of the three private slaughter-houses in the Burgh have been made throughout the year. The slaughter-houses have been regularly lime-washed and cleansed. Complaints have been made on account of these premises being closely situated to dwelling-houses; objection being taken to the removal of manure, hides, &c., across the pavements, but so long as the premises are licensed for this purpose no improvement can be made.

The number of animals slaughtered in the Burgh for the year ended 31st December are:—

Cattle	.	.	.	.	.	.	.	2,605
Sheep	.	.	.	.	.	.	.	3,359
Pigs, &c.	.	.	.	.	.	.	.	110
Total								6,074

2. *Factories and Workshops.*—There are 63 factories and workshops on the register, and periodical visits of inspection were made, and generally they were found to be in a clean and satisfactory condition. One notice under the Public Health Acts was served.

*An Account of the Condition of the Common Lodging-houses.*

There are no common lodging-houses within the Burgh.

*An Account of the Condition of Burial Grounds.*

There are no burial grounds within the Burgh.

*An Account of Proceedings under the Burgh Police Act.*

One notice was served on one owner of property, under Section 146 of the Burgh Police (Scotland) Act, 1892, to repair rhones and rain-water conductors for conveying water from roofs, and it had the desired effect.

Notices were served on 13 owners, under Section 246 of the Burgh Police (Scotland) Act, 1892, calling for the introduction of inside water supply and sinks into 25 houses not later than Whitsunday, 1932, and so far only one has been complied with.

THOS. S. HUTSON, *Sanitary Inspector.*

## BURGH OF TURRIFF.

*General Sanitary Condition.*—The Burgh of Turriff, with all sewers, drains, and water closets, is in good working order, well ventilated, and sufficiently trapped, and, with the streets and gullies cleaned daily, it may be considered to be in a good condition, which is further maintained by the collection of all ashes, papers, and household refuse, and by a modern system of water-closets, which have entirely replaced the old dry ones. There are no ashpits.

*Infectious Disease.*—It is very satisfactory to report that there has been no case of infectious disease during the year 1931.

*Water Supply.*—The principal water supply has its source about three miles distant, on the Town Council's own estate. Said supply is collected from springs, on high ground, cut at a depth of from 12 to 16 feet. The subsoil being originally of gravel, the purest of water is filtered and produced. An additional supply was secured four years ago to augment the principal supply, and is required for a period of from 10 to 12 weeks during the summer months. The small distributing main in centre of town has now been renewed with a 6-inch pipe.

*Sewers.*—The sewers throughout the Burgh are in good condition and rather extensive on account of the largeness of feus and the consequent width of houses. I have further to report that a large storm drain on the lower part of the town has been laid where flooding occurred on several occasions during the thunderstorms. The new sewage purification works are also completed, and give entire satisfaction.

*Common Lodging-house.*—During the year 1,114 beds were supplied in this house, which has accommodation to hold 13 lodgers. The premises are inspected weekly, and found to be well kept, and the sanitary conditions satisfactory.

*Schools.*—The schools are modern, with ample accommodation, and well ventilated. The principal school is centrally heated. There is a range of modern w.c.'s, with three automatic flushing tanks—two holding 80 gallons each, and one 40 gallons. All the sanitary arrangements are well kept.

*Slaughter-houses.*—These are the property of the Town Council and consist of five compartments. They are undergoing, at present, a general overhaul, that they may be kept in a clean condition in future. The old wooden partitions have been replaced with reinforced concrete, internal walls plastered with cement, with an additional ventilation. The number of animals killed during the past year is as follows:—Cattle, 1,296; sheep, 1,045; pigs, 191. Sixteen carcasses were submitted and detained for examination, resulting in the seizure, with owners' consent, of 3,902 lbs. of beef, 240 lbs. of mutton, and also 39 lbs. of preserved cooked boneless ham. The animals were as follows, viz.:—Bullocks, 7; heifers, 2; sheep, 7. Seven suffered from tuberculosis, and 9 from inflammation. All the diseased meat is sent to the local knackery.

*Workshops.*—There are in all 35 workshops and 16 factories falling under the regulations of the Factory and Workshops Act. All are sufficiently lighted and ventilated, and kept in a satisfactory condition. There are no workshops or bakehouses underground, and no home workers come under the regulations of the Home Work Order.

*Dairies.*—Falling under the regulations of the Dairy Order, there are within the Burgh five dairies, embracing 23 cows. The principal supply is brought in from large dairies outside the Burgh. Mr. Howie, Veterinary Inspector for the County and Burgh, carries out the whole of the regulations under the Dairy Order.



*Housing.*—The population of 2,298 live in 713 houses, 241 of which have a rental of £16 or over. During the year two houses have been built by private owners.

Dr Harry J. Rae, Medical Officer of Health, along with myself, examined 65 houses, with the result that 40 of them were considered to be unfit for human habitation, and a notice to this effect was sent to each proprietor of the above houses. The Town Council have purchased four acres of ground to provide decent houses for the people living in these condemned houses.

*Sinks and W.C.'s.*—Notices have been sent to all proprietors of properties which have no sinks, requesting that sinks be put into the houses, and that sufficient w.c. convenience be provided for the use of the tenants.

*Burial Grounds.*—Two burial grounds lie within the Burgh. One is the old churchyard, which is now practically closed, and the other is in connection with the Episcopal Church, where there are only one or two burials annually. The principal cemetery lies outside the Burgh. They are all kept in a satisfactory condition.

No proceedings have been taken under the Burgh Police Act during the year.

WILLIAM JOHNSTON, *Sanitary Inspector.*

#### BURGH OF FRASERBURGH.

1. *Water Supply.*—The water supply to the Burgh proved sufficient for all purposes during the year.

*FEDDERATE SUPPLY.*—Early in the year the level of water at Fedderate Reservoir was heightened six inches by inserting a wooden batten at overflow sill outlet. The capacity of the reservoir was increased by approximately three million gallons. This method of increasing the holding capacity of the reservoir was agreed upon after consultation with Messrs. Carter & Wilson, Civil Engineers, Edinburgh, the Engineers who originally designed and carried through the works. This wooden batten was removed at the end of the year and will only be used to increase the storage capacity for summer supply.

As previously reported, sections of the banks to reservoir require pitching to protect against erosion by wave action. This should be commenced during the late summer of 1932 and carried out in sections as found practicable. The quality of water was up to the usual standard and quite favourably reported upon by the Analyst.

Three of the six mechanical filters were emptied during the early summer and thoroughly cleaned. All nozzles were taken out, cleaned, and replaced, and new quartz filtering medium supplied. The main supply pipe from Fedderate to filters was scoured.

*HILLHEAD SUPPLY.*—The filtered water reservoirs on this system, also the gravel filter beds, were regularly cleaned during the year. One of the reservoirs requires special attention owing to the rapid growth of a green weed on the masonry walling, which, when carried down the main pipes, causes chockages at cistern ball cocks in various premises in the town.

*GENERAL.*—A large number of the sluice valves controlling the distribution mains within the Burgh are quite useless and will require to be replaced by new valves. This will be carried out as opportunity affords.

With an abundant supply of water, householders and others are careless with this valuable commodity and a considerable quantity of water is allowed to run to waste daily. From observations made, the waste of water is considerable, and I suggest that regular inspection of all fittings and services be made throughout the town and action taken to check the waste that unnecessarily takes place.



2. *Drainage*.—The main drainage of the Burgh is in a satisfactory condition. The sewers of flat gradient are regularly flushed by hose. The accumulation of water below floors of dwelling-houses reported last year has now been removed. A drain from the rear of the premises to a storm overflow has been laid and all subsoil water carried off.

3. *Scavenging and Cleansing*.—The scavenging and refuse collection is carried out daily over the whole Burgh, and the system is at present proving satisfactory. All refuse is taken to a toom outwith the Burgh boundary. This toom forms land improvement, the area being covered with soil as tipping proceeds, the owner of the ground having already cropped the area covered.

An undue amount of paper and vegetable matter forms part of the refuse collection. This is found not only in any specified area of the Burgh but generally over the whole town. Householders should burn all paper and vegetable matter, and little more than ashes should form the household refuse for disposal.

4. *Nuisances*.—Choked drains formed the greater part of nuisances complained of during the year. Sixty-seven complaints were received and attended to. No legal proceedings were taken.

5. *Underground Lavatory*.—A new underground lavatory was constructed in the Square, consisting of 3 w.c.'s, 6-stall urinal, attendant's room, and wash-hand basin on gentlemen's side, and 4 w.c.'s, wash-up, and attendant's room on ladies' side.

6. With regard to the Board of Health's Circular of 1st September, 1925, the situation at the end of 1931 is similar to that reported last year. It is hoped that a further survey will be completed during 1932, when the position will be again reviewed.

7. *Infectious Diseases*.—50 patients were removed to the Infectious Diseases Hospital, 54 visits of inquiry made, 56 houses were disinfected, and 56 sets of bedding were disinfected by steam.

One hundred and one intimations and clearance certificates were issued to schools.

8. *Food Inspection*.—Considerable improvements were made during the year to the one food factory within the Burgh where curing and tinning of herring is carried out. These premises are in good condition, clean and well kept, and the handling of food is carried out under strict supervision.

There is only one slaughter-house within the Burgh, belonging to the Town Council. These premises have been well kept and are under the supervision of a caretaker.

Seventy-three seizures of unsound meat were made during the year, all at the public slaughter-house, and all with owners' consent, the total weights seized amounting to 7,641 lbs. meat and offal, 587 lbs. mutton and offal, and 18 lbs. pork offal.

Fifty-one seizures of preserved foods were made, all with owners' consent; these consisted of tinned meats, fish, fruit, and milk, and the total weight condemned was 307 lbs. 13 ozs.

9. *Housing—Private Enterprise*.—Two houses were completed during the year, for which a subsidy was given by the Local Authority under the Housing Act of 1923.

*Housing (Rural Workers) Act, 1926*.—Fifteen applications were received in connection with the improvement of dwellings under this Act. Twelve applications were granted, and in each instance the nature of the improvements was a complete renewal of roofs of dwellings, heightening of walls, new floors, doors, new enlarged windows, partitions, strapping and plastering all walls and partitions, sinks and w.c.'s where required, and in some instances scullery accommodation.

*Slum Clearance Scheme.*—A commencement was made to the erection of 64 houses by the Local Authority under the Housing (Scotland) Act, 1930. 4·08 acres of ground were purchased at College Bounds for this purpose, and of the 64 houses 48 are three-apartment and 16 four-apartment. The scheme is divided into three sections and at the end of 1931 the first section of 24 houses had been let to contract and commenced.

10. *General.*—The schools in the Burgh are all kept in a good sanitary state.

The factories and workshops inspected were all found to be in a good sanitary condition.

11. *Offensive Trades.*—There is only one registered business within the Burgh, that of tallow-melting, which is carried on satisfactorily.

12. *Common Lodging-houses.*—There are no registered common lodging-houses within the Burgh.

13. *Burial Ground.*—The burial ground is outwith the Burgh boundary.

14. *Food and Drugs Act.*—The County Police carry out the work under the Food and Drugs Act.

15. *Dairies, Cowsheds, and Milkshops.*—These now come under the control of the County Veterinary Inspector, but visits of inspection are made in the ordinary course of work, and all premises visited were found to be in good order.

W. F. HAMILTON, *Sanitary Inspector.*

## BURGH OF PETERHEAD.

*Water Supply.*—The water supply to the Burgh has undergone a complete change since my last report. Samples were taken for chemical and bacteriological examination on 31st March, and the following is a copy of the Analyst's report thereon:—

“The sample was clear and gave no deposit on standing for 24 hours. The proportions of both free and albuminoid ammonia were very low and well within the limits usually prescribed for a potable water. The water was neutral in reaction and was entirely free from poisonous metals, nitrates, and phosphates. *Chemically*, this water is of very good quality.”

### *Bacteriological Examination—*

No. of colonies on agar at 37° C. in 96 hours	.	.	=11 per cc.
Do. on gelatine at 22° C.	do.	.	=16 per cc.
B. coli was not found in 50 cc.			

The water is of an excellent bacteriological standard.

In the month of September a number of complaints was received regarding the quality of the water, and another sample was taken for chemical and bacteriological examination, and the following is a copy of the reports:—

“The sample was quite clear and gave only a very small deposit on standing for 48 hours. The proportions of both free and albuminoid ammonia were low and well within the limits usually prescribed for a good potable water. The water was very slightly alkaline in reaction and was entirely free from poisonous metals and nitrates. This water is chemically of good quality and is quite suitable for domestic use.”

*Bacteriological Report on Samples of Water—*

Sample No.	No. of colonies on agar at 37° in 96 hours.	No. of colonies on gelatine at 22° in 96 hours.	B. coli in 50 cc.
1 B	21	11	—
2 B	15	34	—
3 B	13	18	—
4 B	11	14	—

All the waters were of a satisfactory bacteriological standard.

Complaints continued to be received regarding the unsatisfactory condition of the water supply, especially after being heated. At this particular time I was absent from my duty through illness and was therefore unable to take any active part in the investigation of these complaints.

The Town Clerk reported to the Town Council that, in consequence of certain complaints regarding the water supply, the Medical Officer of Health had been requested to make investigation, and after several more samples had been examined it was found that the water in the reservoir and filter beds had been found to be of a satisfactory quality. It was the view that there was an organism which was not dangerous to health, either in the clear water chamber or the distributing mains, which caused a smell on the water being heated. The Medical Officer of Health emphasised the point that full tests had shown that there was nothing in the water in any way harmful to health. A report by the Medical Officer of Health and Mr. T. F. Henderson, Water Engineer, Aberdeen, on the condition of the supply has already been circulated and sent to the Department of Health.

The following report was received from Dr. Tocher on three samples submitted to him for chemical and bacteriological examination:—

No. 1.—“The sample was clear and gave a small deposit of organic matter on standing for 24 hours. The proportion of free ammonia was low, while that of albuminoid ammonia approached the limit usually prescribed for a potable water. The water was very slightly alkaline in reaction and was entirely free from poisonous metals, nitrates, and phosphates. This water is chemically of satisfactory quality for an unfiltered supply.”

*Bacteriological Examination—*

No. of colonies on agar at 37° C. in 96 hours . . . =12 per cc.  
 Do. on gelatine at 22° C. do. . . =29 per cc.  
 B. coli was not found in 50 cc. of water.

The water is of a satisfactory bacteriological standard.

(Signed) J. F. TOCHER.

No. 2.—“The results of analysis of this sample are similar to those of sample No. 1 but the proportion of free ammonia present is slightly greater. The proportion of free ammonia is, however, well within the limit usually prescribed. This water is also chemically of satisfactory quality for an unfiltered supply.”

*Bacteriological Examination—*

No. of colonies on agar at 37° C. in 96 hours . . . =14 per cc.  
 Do. on gelatine at 22° C. do. . . =36 per cc.  
 B. coli was not found in 50 cc. of water.

The water is of a satisfactory bacteriological standard.

(Signed) J. F. TOCHER.

No. 3.—“The results of analysis of this sample are similar to those of Nos. 1 and 2, but it contains less free and albuminoid ammonia than either of the previous samples. The proportion of albuminoid ammonia present is within the limit usually prescribed for a potable water. The sample is chemically of very satisfactory quality for an unfiltered supply.”



*Bacteriological Examination—*

No. of colonies on agar at 37° C. in 96 hours . . . = 9 per cc.  
 Do. on gelatine at 22° C. do. . . = 21 per cc.  
 B. coli was not found in 50 cc. of water.

The water is of a satisfactory bacteriological standard.

(Signed) J. F. TOCHER.

The work in connection with the renewal of the filtering media was commenced on 8th November and very satisfactory progress has been made since that date. It is expected that the filter beds will be in operation again early in the year.

It is interesting to note that the filter beds have been in operation for a period of more than twenty years with only surface cleaning, and during the process of cleaning out the old material an opportunity was afforded for properly examining the condition of the filter beds from top to bottom, and while many parts were in perfect condition, there were defects in the construction at one or two points, especially in one of the filters, which may have contributed to the cause of the trouble. With the view of ascertaining if any improvement was taking place in the quality of the water I had more samples taken for examination on 17th December. At this time all the water was unfiltered.

No. 1—From cold water tap at Howe o' Buchan.

No. 2—Hot water tap at Howe o' Buchan.

No. 3—One from tap at Caretaker's cottage. Water from reservoirs Nos. 2 and 3.

No. 4—One from a point near the outlet in No. 1 reservoir.

No. 5—One from the inlet to No. 1 reservoir.

No. 6—Growth from sides of No. 3 reservoir near inlet.

*Biological and Chemical Examination of Samples—*

No. 1—*Biological Examination.*—There was a moderate deposit in the water, which on microscopical examination was found to contain a few protozoa. The water is of good quality.

*Chemical Examination.*—The sample is of excellent quality.

No. 2—*Biological Examination.*—There was a moderate deposit in this water. Very few protozoa were present. The water is of good quality.

*Chemical Examination.*—This sample is of excellent quality.

No. 3—*Biological Examination.*—There was a moderately large deposit, which contained peridinium and glenodinium. The water is of good quality.

*Chemical Examination.*—This sample is of good quality and is suitable for domestic use.

No. 4—*Biological Examination.*—There was a rather large deposit in this sample. The protozoa, peridinium, and glenodinium were fairly numerous. The water is of good quality.

*Chemical Examination.*—The sample is of good quality and is quite suitable for domestic use.

No. 5—*Biological Examination.*—The deposit in the sample consisted of innocuous algæ and desmids only. No protozoa were present. The water is of good quality.

*Chemical Examination.*—This water is of higher organic purity than samples 1, 2, 3, and 4, and is of excellent quality.

No. 6—The growth from the wall of Forehill Reservoir consisted of masses of algæ, desmids, diatoms and various fungi, all of which are normal constituents of the deposit in a water supply. Peridinium and glenodinium—the protozoa which caused the obnoxious smell in the water supply—were both present in the deposit, but they were not present in any considerable number.



Dr. Tocher further reported that—

“The results of analyses of the five samples of water show that there is no significant difference in the amounts of total solids, chlorides, nitrates, free ammonia and nitrogenous organic matter among these five samples. There is significantly less total organic matter, as indicated by the oxygen absorbed, in the case of the sample taken from the inlet to the reservoir, when compared with the proportions in the other samples. This can be accounted for by the fact that waters at the source vary, from day to day, in the amount of organic matter passing through the various strata. The amount of dissolved organic matter found in the reservoir is a measure of the *average* amount of dissolved organic matter taken up by the water from the various springs and collected in the reservoir. The sample taken at the inlet to the reservoir contained a minute quantity of dissolved iron. It is of interest to note that no protozoa were found in the sample taken at the inlet. This does not necessarily mean that no protozoa are present in the water flowing into the reservoir; it simply means that protozoa were absent from the sample taken, which is extremely small compared with the total volume of water. There is, however, as a result of analysis, a presumption in favour of the absence of these protozoa in the water flowing into the reservoir. It will be observed that the two types of protozoa were found to be fairly numerous in the samples of water Nos. 3 (first tap below reservoir at Forehill) and 4 (taken near outlet of tank 1). Very few protozoa were found in samples Nos. 1 and 2. The protozoa flourish and multiply rapidly in mild and warm weather. During cold weather, growth is inhibited. It is therefore to be expected that protozoa in the water from the taps within the Burgh will be few in number during cold weather and may gradually die out.

The moist material from the reservoir walls consisted mainly of water, of vegetation, such as algæ, and of innocuous animal life generally associated with water collected in a reservoir from agricultural and hilly land. It will be noted that the types of protozoa found, namely, *Peridinium* and *Glenodinium*, were few in number. They are furnished with cilia, which enable them to move through the water, and this accounts for their presence in the material from the reservoir walls. They occur regularly in stagnant pools and ponds.

The cause of the odour in *Peridinium* and *Glenodinium*—the only organism present causing odour in the water supply—is the presence of minute quantities of complex oily compounds within their body walls. The living forms, although minute, are very much larger and are more highly organised in structure than bacteria. The presence of the oily product can be detected from its odour, in a dilution of one part in 50 million parts. A gallon of water, charged with the oily product, contains a little less than one-thousandth of a grain of oil. It is therefore clear from this fact alone—quite apart from experience—that the oil is non-injurious to health. The odour is, however, quite objectionable and has caused trouble in other water supplies. It has been found difficult in certain supplies to get rid of the odour and of its cause.

We understand the filters are being cleaned and renewed. There is still the problem of freeing the pipes from infection. Scouring will undoubtedly effect a reduction in the number, as this operation will cause disintegration and consequent destruction of many of these organisms.

The freedom of the water supply from odour in the future will depend upon (1) the thoroughness of scouring of the pipes, (2) the proper renovation of the filter beds, and (3) the extent to which the water is warmed by the summer and autumnal temperatures and rainfall of next year.

With regard to the results of analyses generally, we have to report that, both chemically and bacteriologically, all the samples of water were of good quality—some were of excellent quality—and all were quite suitable for domestic use.”

(Signed) J. F. TOCHER.

(Signed) JAS. W. TOCHER.

It is expected that the new filters will prevent the admission of protozoa from the supply to the distributing mains, and that when these are in operation there will be no further cause for complaint.

The usual complaints were received during the summer months regarding a rather intermittent supply of water to certain houses on the higher level, especially at Balmoor Terrace. These complaints will likely become more numerous in view of the fact that the new Housing Scheme under the 1930 Housing Act is being built in the locality served by the same water main. The Town Council may have to take steps to give a more constant supply by erecting a tank at the top of the hill, and meantime I am enquiring if such a scheme would give satisfactory results.

*Rainfall.*—The rainfall for the year was 29·92, compared with 38·39 for 1930.

*Drainage.*—The main drainage of the Burgh is in a fairly satisfactory condition. As usual a number of the sewers had to be artificially cleansed, as the gradients are insufficient to render them self-cleansing.

The open water-course on both sides of Kimmundy Road for a distance of 250 lineal yards or thereby has now been covered in by a 15-inch diameter pipe on the south side, and a 9-inch diameter pipe on the north. There only remains the open ditch extending from Kimmundy Road to the West Road to be covered if necessary.

*Sewage Disposal.*—All the sewage of the Burgh in its crude state is discharged from 10 separate outfalls into the sea, either below or near low-water mark. There has never been any cause for complaint regarding this means of disposal.

*Scavenging.*—There is nothing new to report in connection with the cleansing of the Burgh. Household refuse is collected four times weekly, Tuesday and Thursday being omitted. The refuse is tipped into the sea at Keith Inch, where it is washed away daily. No nuisance arises from this method, and no complaints have ever been received.

*Nuisances.*—63 intimations of nuisances were served under Section 19 of the Public Health (Scotland) Act, 1897, and a large number were dealt with verbally.

The number of common water-closets serving :—

2 tenants	3 tenants.	4 tenants.	5 or more tenants.
280	227	146	98

The number of houses without water supply or sink inside house is 1,338.

There are no ashpits within the Burgh. There are 33 privies, each serving one tenant.

*General Inspections.*—The usual inspections were made during the year in connection with nuisances, infectious disease, milkshops, workshops, housing, &c. There were no special inspections or enquiries during the year.

*Slaughter-house.*—There is only one slaughter-house within the Burgh, which belongs to the Local Authority. It is well kept by the superintendent, and there has never been any cause for complaint.

During the year 1,613 cattle, 1,014 sheep, and 202 pigs, were slaughtered, and the revenue amounted to £276 18s. 6d., compared with £297 8s. for the previous year.

Seventy-five carcasses were affected with tuberculosis, viz., 46 whole and 29 partly, weighing 8 tons 5 cwt. 1 qr., all of which was condemned as unfit for human food and sent to W. Sim & Co., Manure Manufacturers, Aberdeen.

During the year bye-laws regulating the use of the public slaughter-house were brought into operation.

*Offensive Trades.*—There are three offensive trades within the Burgh, viz., Fish Meal Factory, Guano Factory, and Tripe and Gut Cleaning.

There has been no cause for complaint regarding any of these trades during the year.

*Factories and Workshops.*—The number of workshops on the register remains the same as last year, viz.:—

Tailoring . . . . .	12
Baking . . . . .	15
Dressmaking and Millinery . . . . .	6
Fish-curing . . . . .	41
Others . . . . .	39

On inspection these were found, on the whole, to be well kept.

*Common Lodging-houses.*—There are no common lodging-houses within the Burgh.

*Burial Grounds.*—There are two burial grounds within the Burgh, both of which are satisfactory in every way.

*Burgh Police Act.*—The following notices were served under the Burgh Police Act:—

Cleaning and washing common stairs and passages . . . . .	6
Whitewashing common stairs and passages . . . . .	51
Repair rhones and pipes . . . . .	4
Cleanse water-closets used in common . . . . .	12

*Housing (Rural Workers) Act, 1926.*—Seven applications for grants in aid of the reconstruction and improvement of houses, under the above Act, were granted during the year, amounting in all to £682.

*Housing Act, 1923—Private Subsidy.*—Two applications for grants under the above Act were granted during the year, amounting to £133 6s. 8d.

*Housing (1924) Scheme.*—The following report in connection with a proposal to extend the housing under the 1924 Act was submitted by me to the Town Council:—

“The whole of the ground taken off at Grange Gardens has now been feued. There are on this site:—

12 two-apartment houses . . . . .	24	apartments
44 three-apartment houses . . . . .	132	„
24 four-apartment houses . . . . .	96	„
8 five-apartment houses . . . . .	40	„
—a total of 88 houses containing 292 apartments.		

The estimated population of Grange Gardens is 308, or about one person per room. It will therefore be seen that this scheme is not being utilised to the full advantage for housing the population. Four hundred and ninety-six persons could occupy similar accommodation under the 1930 Housing Scheme and it would be by no means overcrowded.



Under the 1930 Act it is proposed to close 83 houses, consisting of 161 apartments, and containing a population of 342 persons. If these persons were to be housed in the same proportion as the Grange Gardens Scheme it would be necessary to provide 114 three-apartment houses or their equivalent, whereas under the 1930 Housing Scheme all can be accommodated comfortably in—

36 houses of 3 apartments with 5 persons per house	180 persons
20 houses of 4 apartments with 7 persons per house	140 persons
4 houses of 5 apartments with 9 persons per house	36 persons
—	—
60 houses	356 persons
==	==

Whichever scheme may be enlarged the Local Authority's contribution remains the same, viz., £4 10s. per house, but under the 1924 Scheme it will be necessary to charge a higher rental than in the 1930 Scheme. The 1930 Scheme has an advantage over the 1924 Scheme in respect that the houses can be let to the poorer class of the community at a rent which the ordinary working man would be expected to be able to pay. It is quite evident from past experience that the ordinary working man is not able to pay the high rent required for the houses under the 1924 Scheme.

The Government contribution, on an average per house, is much larger in the case of the 1930 Scheme and is based on the number of persons displaced from uninhabitable properties, whereas the contribution on the 1924 Scheme is based on the houses built, irrespective of the number of persons who are to occupy them.

It is estimated that the three-apartment houses being built under the 1930 Scheme will be let at a rental of £12 per annum, and I am of opinion that this is the house which the Town Council should concentrate their attention upon, at least until such time as the requirements of the poorer class have been met. It is quite evident that unless substantial financial assistance is to be given to those who are unable to pay for better accommodation, it will be impossible to improve the housing conditions generally within the Burgh.

An extension of the Grange Gardens Scheme would mean the housing of the better class of the community, and there would be no finality to the scheme, as applications would be made, as fast as houses were provided, by people who are already tenants of quite good houses.

The 1930 Act is a definite scheme for the alleviation of the unsatisfactory housing conditions within the Burgh, and I would recommend the Town Council, for the next few years at least, to develop this scheme to the full advantage. After about 100 houses have been built the whole matter could be reconsidered.

It should also be taken into consideration that, in the event of the 1924 Scheme being developed, it would undoubtedly retard the building operations of the 1930 Scheme."

*Housing (Scotland) Act, 1930.*—The first instalment under the above Act, consisting of 36 three-apartment houses, is presently in course of construction, and it is expected that they will all be occupied during the year. A further instalment, consisting of 28 four-apartment houses, has been approved, tenders accepted, and the work will be commenced at an early date.

*Rag and Flock Act, 1911.*—No proceedings were taken under the above Act during the year.



HOUSING (INSPECTION OF DISTRICT) REGULATIONS (SCOTLAND), 1928.

1. Number of dwelling-houses inspected . . . . .	170
2. Number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation . . . . .	83

HOUSING (SCOTLAND) ACT, 1925.

3. Number of cases where intimations were given under Section 20 (1) as to insufficient water-closet accommodation:—	
(a) Cases where requirements complied with by owners . . . . .	<i>Nil</i>
(b) Cases where works carried out by Local Authority after failure of owners to do so . . . . .	<i>Nil</i>
(c) Cases still pending . . . . .	<i>Nil</i>
4. Number of houses of (a) one apartment, and (b) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111 . . . . .	(a) <i>Nil</i> (b) <i>Nil</i>

HOUSING, TOWN PLANNING, &C. (SCOTLAND) ACT, 1919.

5. Number of cases where notices were served under Section 40 (1) to provide dwelling-houses with water supply:—	
(a) Cases where requirements complied with by owners . . . . .	<i>Nil</i>
(b) Cases where works carried out by Local Authority after failure of owners to do so . . . . .	<i>Nil</i>
(c) Cases still pending . . . . .	<i>Nil</i>

HOUSING (SCOTLAND) ACT, 1930.

*Nil.*

UNSOOUND FOOD.

1. *Meat.*

Number of seizures, weights of meat seized, and reasons for seizure.

	Number.	Beef.	
		Weight.	
Tuberculosis . . . . .	75	8 tons 5 cwts.	1 qr.
Unsound condition . . . . .	19		105 lbs.
	94	8 tons 6 cwts.	21 lbs.

2. *Other Articles of Food.*

Articles.	Where seized.	Quantities or weights.	Reasons for seizure.
Tinned fruit.	Various shops.	21 tins.	Decomposed.

JAMES DICKIE, *Sanitary Inspector.*



